

AD-A124 058

MARINE SAFETY STATISTICAL REVIEW COMDTINST M167002(U)  
COAST GUARD WASHINGTON D C OFFICE OF MERCHANT MARINE  
SAFETY 81 JAN 79

1/1

UNCLASSIFIED

F/G 12/1

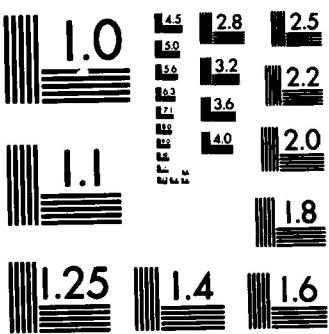
NL

ES  
AMT

END

FILED

010



MICROCOPY RESOLUTION TEST CHART  
NATIONAL BUREAU OF STANDARDS-1963-A

ADA124058

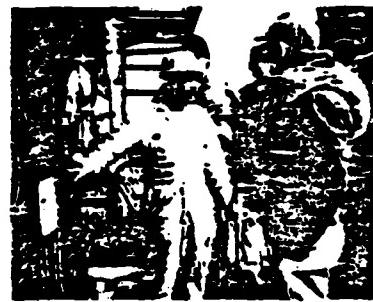
DEPARTMENT OF TRANSPORTATION  
COAST GUARD

(S)

Exch 426-7561

U.S. Coast Guard (G-Ma/25)  
CISCG HQ  
2100 Second St. S.W.  
Washington, D.C. 20590

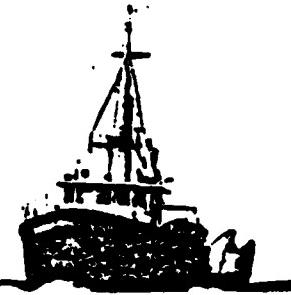
# Marine Safety Statistical Review



Copy available to DTIC does not permit fully legible reproduction



1979



DTIC  
ELECTED  
FEB 03 1983  
S E D  
E



DTIC FILE COPY

COMDINST M16700.2

This document has been approved  
for public release and sale; its  
distribution is unlimited.

83 02 03 059

## **DISCLAIMER NOTICE**

**THIS DOCUMENT IS BEST QUALITY  
PRACTICABLE. THE COPY FURNISHED  
TO DTIC CONTAINED A SIGNIFICANT  
NUMBER OF PAGES WHICH DO NOT  
REPRODUCE LEGIBLY.**

## Technical Report Documentation Page

1. Report No.	2. Government Accession No.	3. Recipient's Catalog No.	
AD-A124058			
4. Title and Subtitle	5. Report Date		
Marine Safety Statistical Review COMDTINST M16700.2	1 January 1979		
6. Performing Organization Code	7. Author(s)		
G-MA/TP25			
8. Performing Organization Report No.	9. Performing Organization Name and Address		
	Commandant U. S. Coast Guard Headquarters Washington, D. C. 20590		
10. Work Unit No. (TRAIL)	11. Contract or Grant No.		
	None		
12. Sponsoring Agency Name and Address	13. Type of Report and Period Covered		
Commandant U. S. Coast Guard Headquarters Washington, D. C. 20590	Merchant Marine Safety Mission Area Statistics 1979		
14. Sponsoring Agency Code	15. Supplementary Notes		
G-MA/TP25			
16. Abstract			
<p>This is a compilation of statistics from various programs managed by the Office of Merchant Marine Safety, U. S. Coast Guard. It includes Commercial Vessel and Personnel Casualties, Inspected Vessels of the United States, Documented Vessels of the United States, and the Foreign Flag Tanker Boarding Program. The information is current to 1 January 1979 and will be updated annually.</p>			
17. Key Words	18. Distribution Statement		
Marine Safety Statistical Review COMDTINST M16700.2	Document is available to the public through the National Technical Information Service, Springfield, Virginia 22151		
19. Security Classif. (of this report)	20. Security Classif. (of this page)	21. No. of Pages	22. Price
Unclassified	Unclassified	62	



DEPARTMENT OF TRANSPORTATION  
UNITED STATES COAST GUARD

MAILING ADDRESS:  
U.S. COAST GUARD (G-MA/TP25)  
WASHINGTON, D.C. 20590  
PHONE: 202 426-9561

COMDTINST M16700.2  
31 JUL 1979

COMMANDANT INSTRUCTION M16700.2

Subj: Marine Safety Statistical Review

1. PURPOSE. The Marine Safety Statistical Review contains information compiled from four mission areas that operate under the direction of the Office of Merchant Marine Safety: Commercial Vessel Casualty Investigation, Inspection of the United States Commercial Vessels, Vessel Documentation, and the Examination of Foreign Flag Tankships. Statistics are based upon information available for each area as of 1 January 1979.
2. AVAILABILITY. This publication is available to the public through the National Technical Information Service.
3. CHANGES. It is anticipated that information contained in this publication will be updated annually. Any comments concerning the scope, format, or other particulars which will make future editions more useful should be addressed to:

Commandant (G-MA/TP25)  
U. S. Coast Guard Headquarters  
Washington, D. C. 20590

0716  
copy  
mailed  
to

Accession For

NTIS GRA&I   
DTIC TAB   
Unannounced   
Justification

By \_\_\_\_\_  
Distribution/  
Availability Codes

Dist	Avail and/or Special
A	23

DISTRIBUTION - SDL No. 109

	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t	u	v	w	x	y	z
A																										
B	1	15		6													50	3	1	2						
C																	7									
D																										
E																	2	2	2							
F																										
G																										
H																										

NON-STANDARD DISTRIBUTION:

TABLE OF CONTENTS

FORWARD . . . . .	ii
I. VESSEL CASUALTIES . . . . .	I-1
II. PERSONNEL INJURIES & DEATHS . . . . .	II-1
III. INSPECTED VESSELS OF THE U. S. . . . .	III-1
IV. DOCUMENTED VESSELS OF THE U. S. . . . .	IV-1
V. FOREIGN FLAG TANK VESSEL EXAMINATION PROGRAM . .	V-1

## FORWARD

The following statistics have been generated from a number of data files either managed or accessed by the Information and Analysis Staff, G-MA/TP25, of the Office of Merchant Marine Safety, U. S. Coast Guard Headquarters. The information is provided both as a general description of the various Merchant Marine Safety mission areas and as a means of stimulating further interest in additional information of a more specific nature.

Considering the general format of the information provided herein, the reader is cautioned against using the contents as any more than an indicator of magnitudes or as a guide to areas worthy of intensive research. The Information and Analysis Staff can provide more specific and explanatory information upon request. In addition, the U. S. Coast Guard is not responsible for incorrect interpretations of the statistics due either to a misunderstanding of the various mission areas and their responsibilities or as a result of errors or shortcomings in the automated databases.

Sections I and II of this booklet deal with the Commercial Vessel Casualty Reporting System. The sources for this information are the Report of Vessel Casualty or Accident, CG-2692, the Report of Personnel Injury or Loss of Life, CG-924E, and the accompanying investigative reports.

A casualty is required to be reported to the U. S. Coast Guard whenever any of the following occur:

- a. Actual physical damage to property in excess of \$1,500.
- b. Material damage affecting the seaworthiness or efficiency of a vessel.
- c. Stranding or grounding. (With or without damage.)
- d. Loss of life.
- e. Injury causing any persons to remain incapacitated for a period in excess of 72 hours; except injury to harbor workers not resulting in death and not resulting from vessel casualty or vessel equipment casualty.

The automated casualty files, which date back to fiscal year 1963, contain more than 72,000 vessel and 17,000 personnel records. In addition to Coast Guard usage, information is regularly provided to other government agencies as well as the private sector.

Section III contains information concerning vessels inspected by the Coast Guard under Title 52 of the Revised Statutes of the United States. The file, which presently contains over 10,000 active records, is not historical in nature. It is updated monthly as information is received at USCG Headquarters. The primary information source is the Certificate of Inspection, CG-4678. The file is used to compile the "List of Inspected Tank Barges and Tankships" which is published semiannually.

Section IV statistics are derived from the documented vessel file maintained by the Merchant Vessel Documentation Division at USCG Headquarters. This file is used to generate the annual publication of "Merchant Vessels of the United States", CG-408. The data base currently contains approximately 112,000 records.

Section V presents several tables and graphs which indicate the scope of the Foreign Flag Tank Vessel Examination Program, which was expanded in January 1977. The data base contains over 4,000 records of examination to date. Information is drawn from the Tank Vessel Examination Letters that are forwarded to the Merchant Vessel Inspection Division at USCG Headquarters.

---

---

SECTION I

VESSEL CASUALTIES

A. Statistical Summary of Casualties to Commercial Vessels - Fiscal Year 1978 . . . . .	I-3
B. Tabular Summary Fiscal Years 1971-1978	
1. Casualty Nature vs. Fiscal Year . . . . .	I-4
2. Casualty Cause vs. Fiscal Year . . . . .	I-5
C. Graph Series 1: Casualty Cause by Calendar Year for Five Types of Casualties	
1A - Collisions . . . . .	I-6
1B - Fires/Explosions . . . . .	I-7
1C - Groundings . . . . .	I-7
1D - Material Failures . . . . .	I-8
1E - Ramming . . . . .	I-8
D. Tabular Summaries	
1. Vessels Involved in Casualties	
Vessel Type vs. Fiscal Year . . . . .	I-9
2. Casualties	
Body of Water vs. Fiscal Year . . . . .	I-10
E. Graph Series 2:	
Number of Vessels Involved in Casualties by Calendar Year for Five Regions	
2A - Inland Atlantic . . . . .	I-11
2B - Inland Gulf . . . . .	I-12
2C - Inland Pacific . . . . .	I-12
2D - Western Rivers . . . . .	I-13
2E - Great Lakes . . . . .	I-13

F. Graph Series 3:

Type of Casualty by Calendar Year for Seven Port Areas

3A - Chesapeake Bay . . . . .	I-14
3B - Delaware Bay . . . . .	I-15
3C - Houston/Galveston/Port Arthur . . . . .	I-15
3D - Los Angeles/Long Beach . . . . .	I-16
3E - New Orleans/Mississippi River Passes . . . . .	I-16
3F - New York/Long Island . . . . .	I-17
3G - Puget Sound . . . . .	I-17

G. Vessel Casualty Investigations

Reporting Office vs. Fiscal Year . . . . . I-18

## Statistical Summary of Casualties to Commercial Vessels

• October 1977 to 20 September 1978  
Final Year 1978

**VESSEL CASUALTIES**  
**CASUALTY NATURE VS. FISCAL YEAR**

	1971	1972	1973	1974	1975	1976*	1977	1978
<b>COLLISION</b>	471	454	497	513	577	660	547	646
<b>RAMMING</b>	643	631	763	691	757	879	716	882
<b>GROUNDING</b>	603	538	657	793	786	1,130	1,067	1,027
<b>FIRE/EXPLOSION</b>	176	170	149	180	206	285	214	210
<b>FLOODING</b>	18	24	51	62	86	102	74	109
<b>FOUNDERING</b>	27	23	29	124	302	389	305	344
<b>CAPSIZING</b>	48	38	61	63	49	73	35	70
<b>MATERIAL FAILURE</b>	494	486	751	745	401	428	499	854
<b>OTHER</b>	95	58	156	207	139	264	117	126
<b>TOTAL</b>	2,575	2,422	3,116	3,378	3,303	4,210	3,574	4,268

\* FIFTEEN MONTH REPORTING PERIOD

**VESSEL CASUALTIES PRIMARY CAUSE VS. FISCAL YEAR  
(ALL VESSELS INVOLVED)**

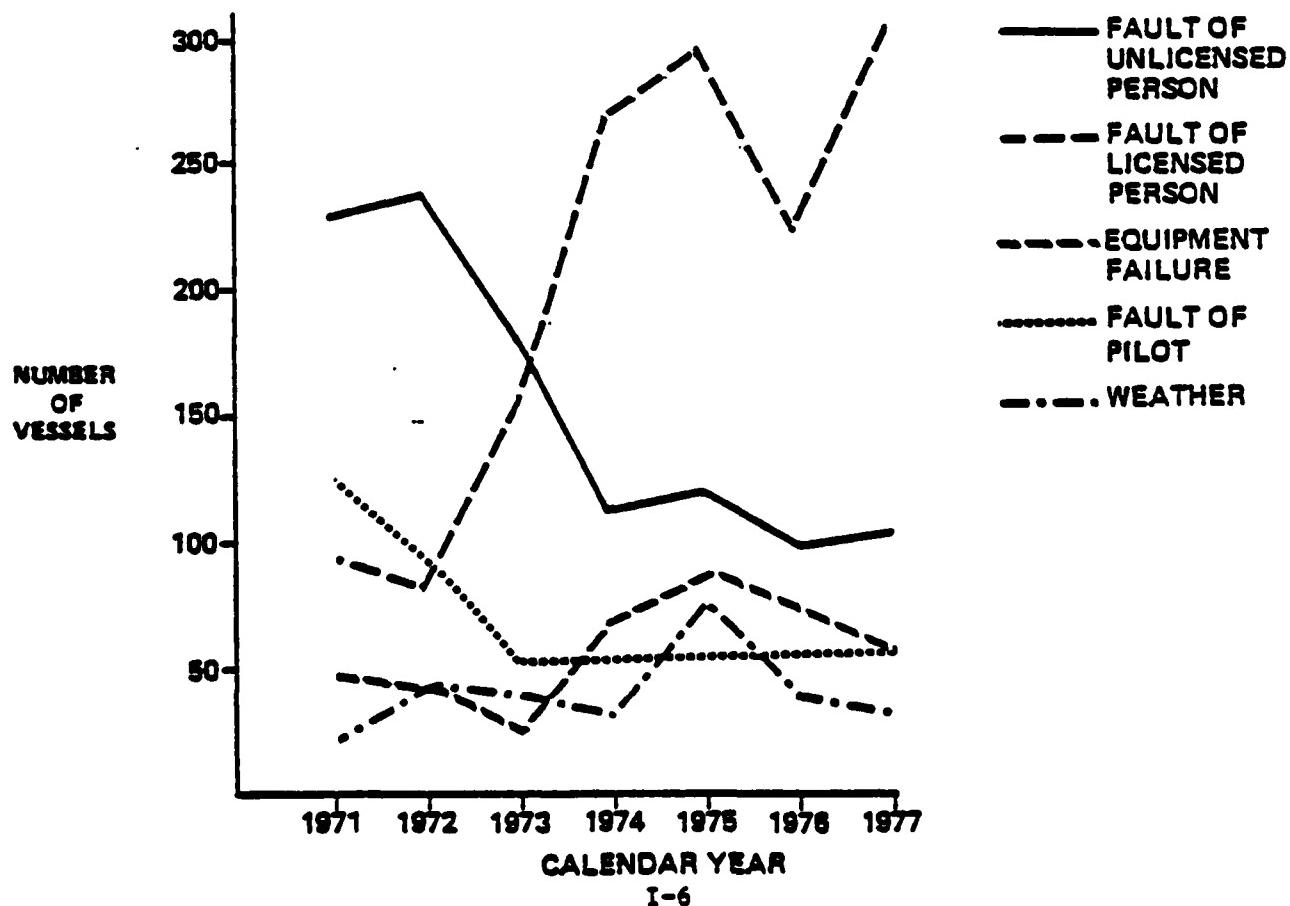
	1971	1972	1973	1974	1975	1976	1977	1978
PERSONNEL FAULT	1,333	1,386	1,440	1,544	1,651	1,983	1,681	2,010
STORMS/ADVERSE WEATHER	370	256	261	291	293	405	298	360
CHANNEL CHARACTERISTICS	85	76	194	209	160	634	317	227
STRUCTURAL FAILURE	2	586	252	136	120	133	101	48
EQUIPMENT FAILURE	524	483	651	777	788	879	659	1,024
UNSEAWORTHY/IMPROPER MAINTENANCE	81	58		30	40	34	89	128
FAULT OTHER VESSEL/ PERSONNEL	1,435	1,033	1,639	1,830	2,063	2,350	2,563	2,874
OTHER	311	238	481	564	432	715	432	447
TOTAL	4,141	4,116	4,962	5,381	5,547	7,133	6,140	7,118

**GRAPH SERIES 1: CASUALTY CAUSE BY CALENDAR YEAR  
FOR FIVE TYPES OF CASUALTY**

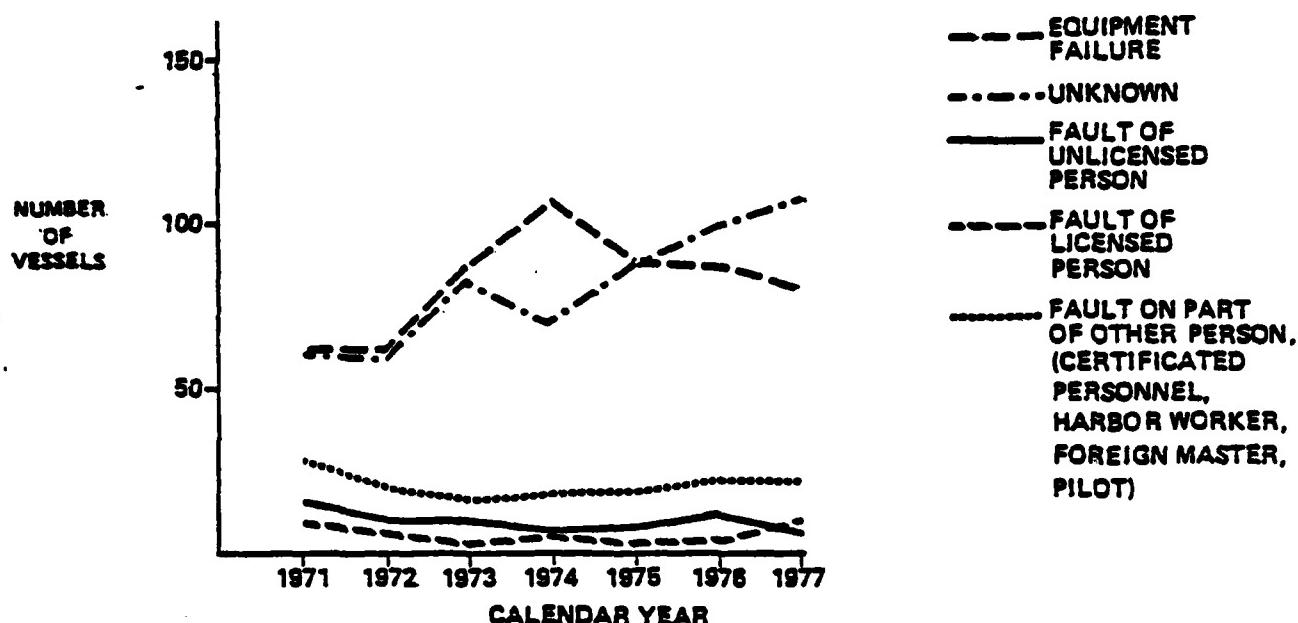
**TYPES:** COLLISIONS  
FIRES/EXPLOSIONS  
GROUNDRINGS  
MATERIAL FAILURES  
RAMMINGS

**CAUSES:** FIVE MOST FREQUENTLY  
INVOLVED FOR EACH  
CASUALTY TYPE

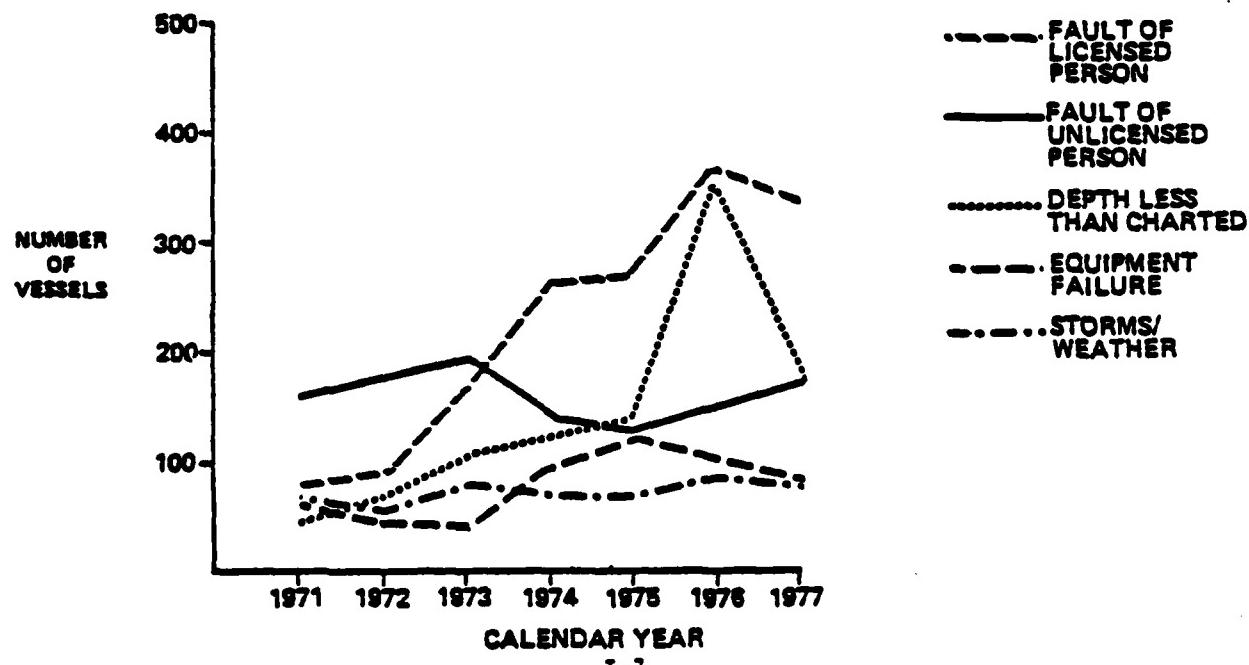
**GRAPH IA: COLLISIONS**



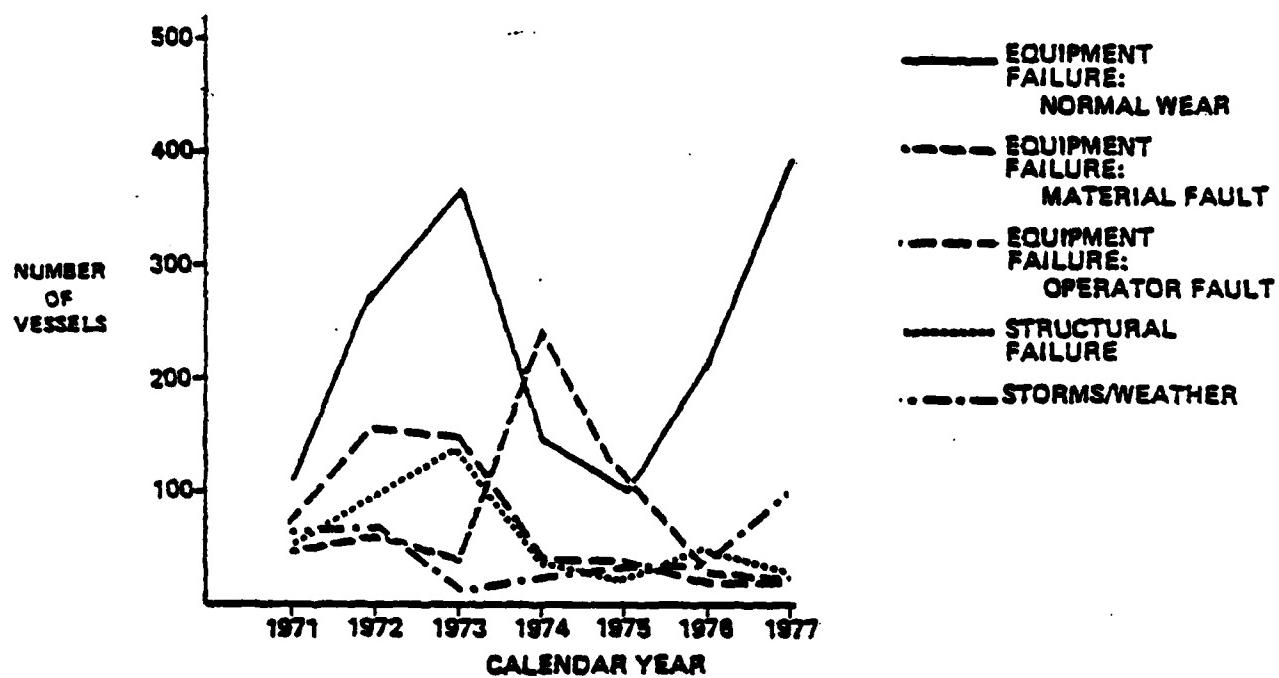
### GRAPH 1B: FIRES/EXPLOSIONS



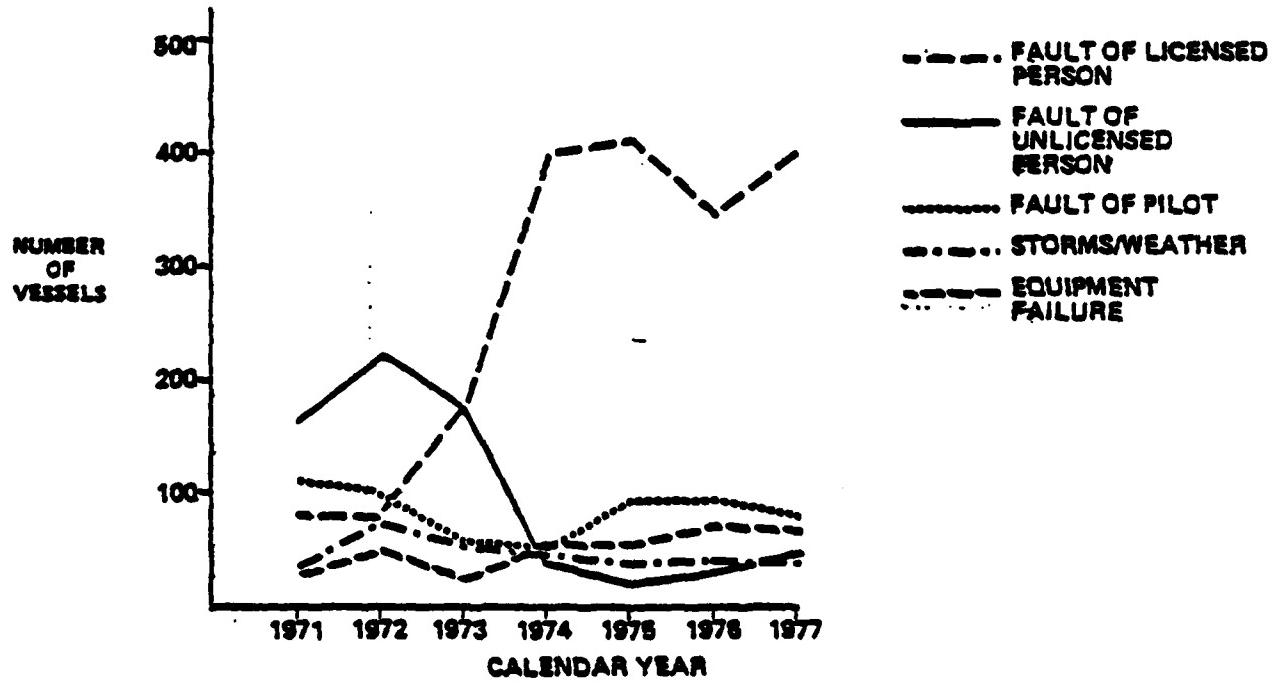
### GRAPH 1C: GROUNDINGS



### GRAPH 1D: MATERIAL FAILURES



### GRAPH 1E: RAMMINGS



**VESSELS INVOLVED IN CASUALTIES**  
**VESSEL TYPE vs. FISCAL YEAR**

	1971	1972	1973	1974	1975	1976	1977	1978
ARTIFICIAL ISLAND ON DRILLING	1	10	3	20	25	31	28	3
CARGO VESSEL U.S. INSPECTED	509	487	508	472	422	521	474	581
CARGO BARGE	496	649	814	811	936	1285	1012	1162
FREIGHT & OFFSHORE SUPPLY VESSELS	69	67	27	40	61	89	55	58
CONSTRUCTION & WRECKING VESSELS	67	54	50	42	65	115	54	87
DREDGE, SELF- PROPELLED	2	7	12	18	9	10	14	2
DREDGE, MDM SELF-PROPELLED	29	18	31	30	29	45	27	4
FISHING VESSEL, EXCL. SPORT & CHARTER	649	497	725	924	852	1013	647	1180
TUG & TOWBOAT	106	1087	1253	1618	1495	1914	1701	1611
PASSENGER >100 FT. & 100 G.T.	15	14	27	15	16	26	1	30
PASSENGER >65 FT. <100 G.T.	21	17	22	23	24	73	41	44
PASSENGER ≤65 FT.	97	109	195	143	117	139	81	187
FERRIES ≤100 FT.	29	24	14	17	21	26	2	17
FERRIES > 65 FT. <100 G.T.	1	1	4	2	2	14	2	5
FERRIES ≥ 65 FT.	4	6	1	3	1	0	1	5

	1971	1972	1973	1974	1975	1976	1977	1978
PASSENGER VEHICLE	2	0	1	1	1	1	1	1
TANKSHIP U.S. INSPECTED	191	206	247	210	212	257	214	319
PUBLIC PASSENGER VESSEL								
PUBLIC CARGO VESSEL								
PUBLIC TANKSHIP	16	12	3	11	5	7	16	15
PUBLIC OTHER								
FOREIGN PASSENGER VESSEL	4	4	5	9	6	7	1	1
FOREIGN CARGO VESSEL	156	161	197	234	243	257	247	277
FOREIGN TANKSHIP	51	55	64	103	103	127	108	141
FOREIGN OTHER	34	29	1	18	42	52	36	48
CARGO BARGE HAZARDOUS CARGO								
TANK BARGE HAZARDOUS CARGO								
HOVERCRAFT	497	497	518	613	650	759	875	782
MISCELLANEOUS RESEARCH, CABLE etc.	93	72	144	182	176	295	217	200

**VESSEL CASUALTIES**  
**BODY OF WATER VS. FISCAL YEAR**

	1971	1972	1973	1974	1975	1976	1977	1978
*INLAND ATLANTIC	501	436	655	590	654	839	776	716
INLAND PACIFIC	286	323	479	463	369	570	433	596
INLAND GULF	745	591	764	671	674	560	418	409
OCEAN ATLANTIC	147	125	157	165	149	261	230	209
OCEAN PACIFIC	174	215	296	370	206	327	204	494
OCEAN GULF	134	131	73	163	172	262	149	227
GREAT LAKES	178	195	170	238	211	206	232	260
WESTERN RIVERS	265	251	407	615	557	595	635	672
INDIAN OCEANS	18	8	7	3	4	9	23	27
MEDITERRANEAN SEA	0	1	2	5	1	9	12	18
ARCTIC OCEAN	0	0	3	0	0	0	0	0
CARIBBEAN SEA	15	19	15	13	13	22	34	76
FOREIGN WATERS	114	126	107	99	93	195	91	75

\*INLAND RULES OF THE ROAD, U.S. WATERS

**GRAPH SERIES 2: NUMBER OF VESSELS INVOLVED  
IN CASUALTIES BY CALENDAR  
YEAR FOR FIVE REGIONS**

REGIONS: INLAND ATLANTIC\*

INLAND GULF\*

INLAND PACIFIC\*

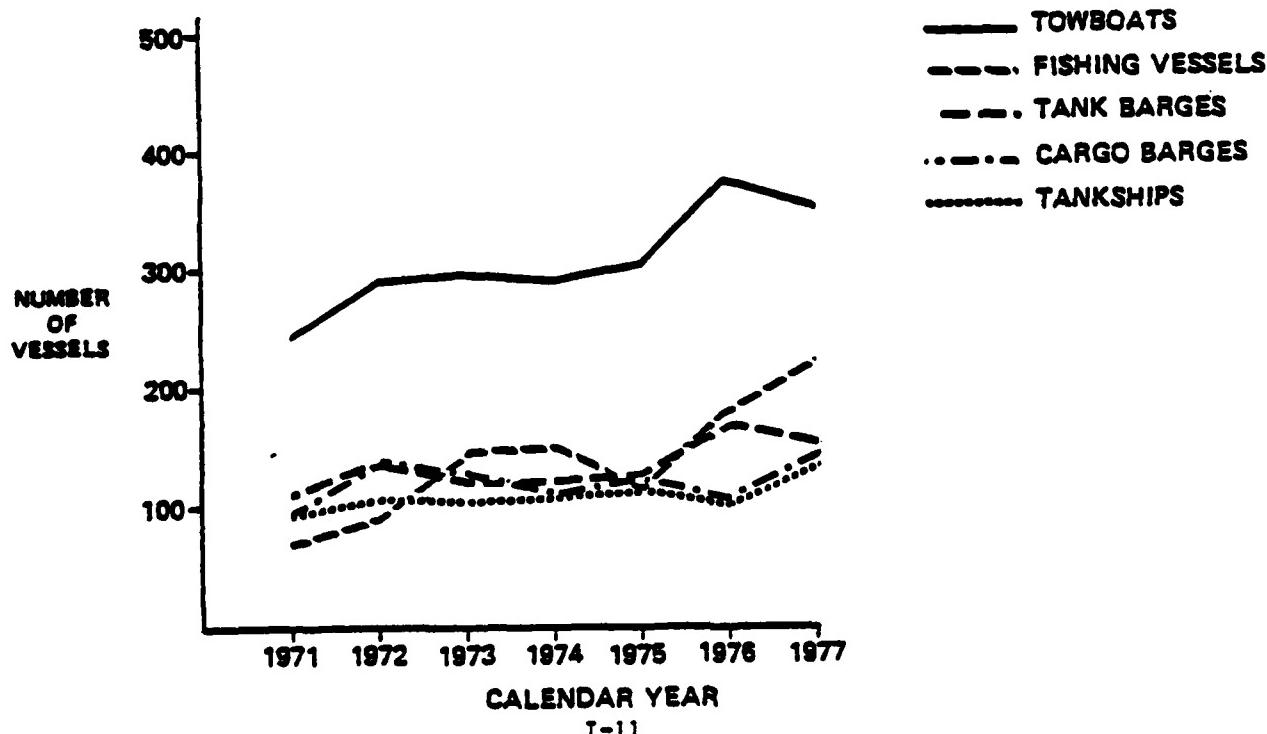
WESTERN RIVERS

GREAT LAKES

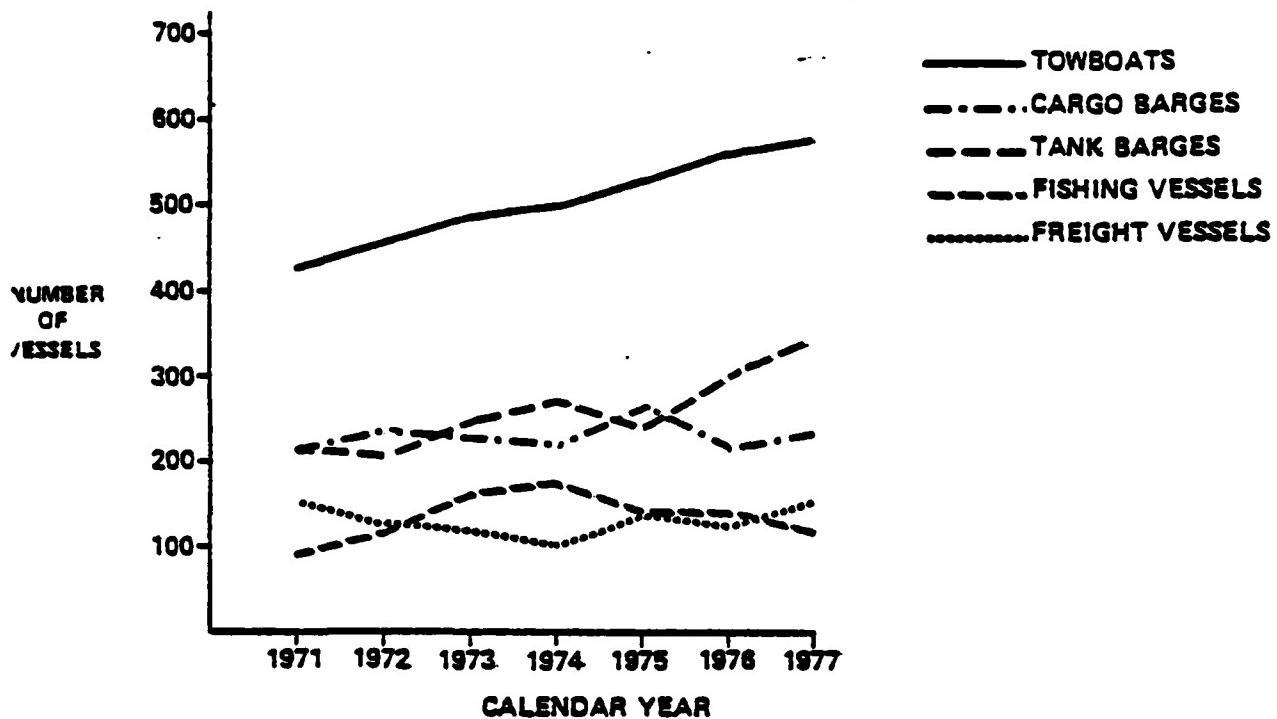
VESSEL TYPES: FIVE MOST FREQUENTLY  
INVOLVED IN EACH REGION

\* INLAND RULES OF THE ROAD APPLY

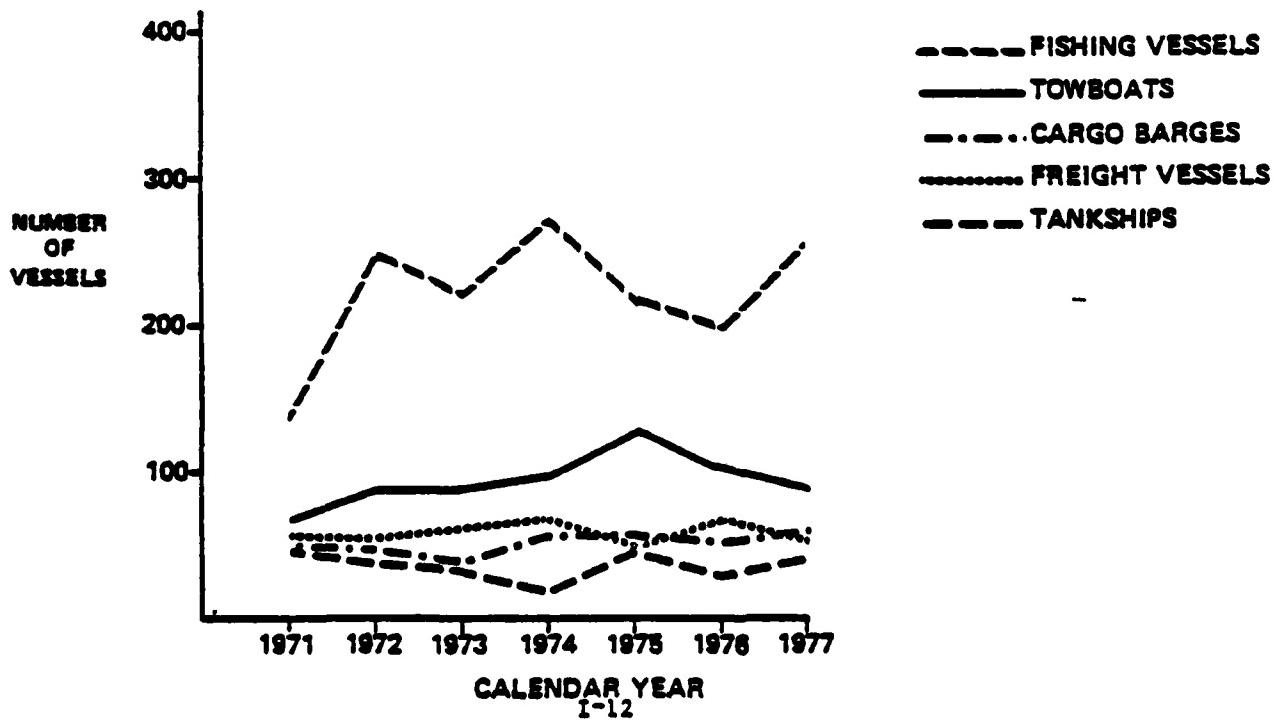
**GRAPH 2A: INLAND ATLANTIC**



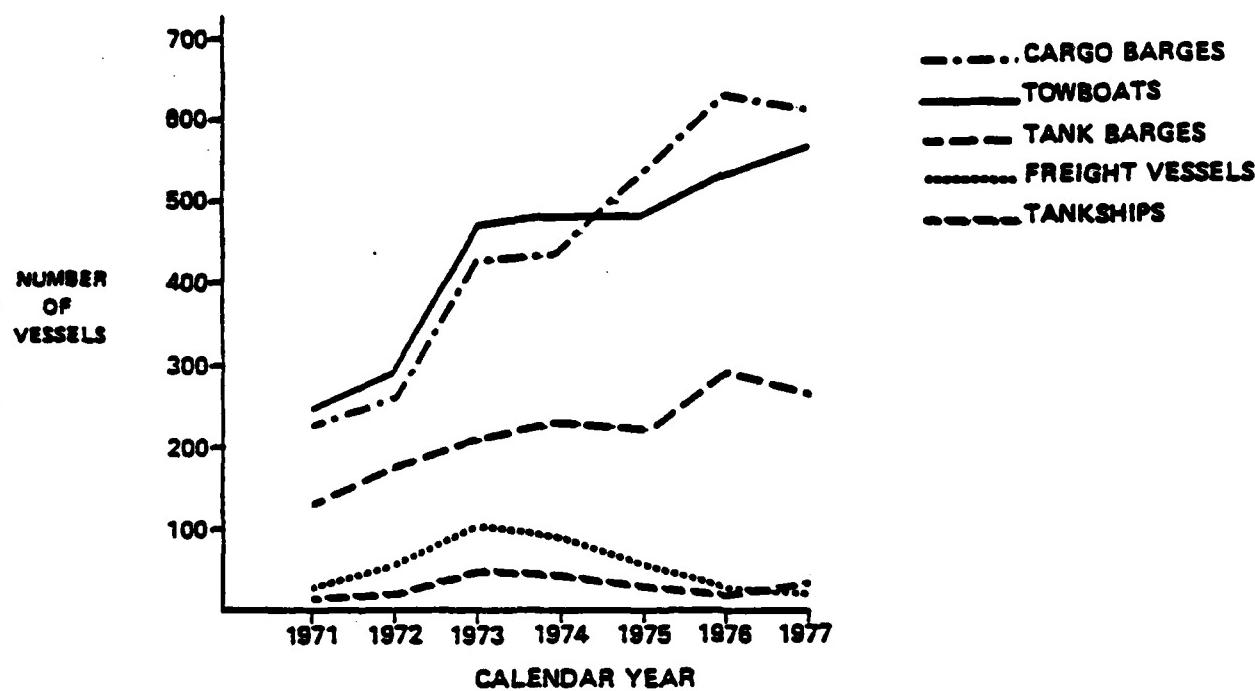
### GRAPH 2B: INLAND GULF



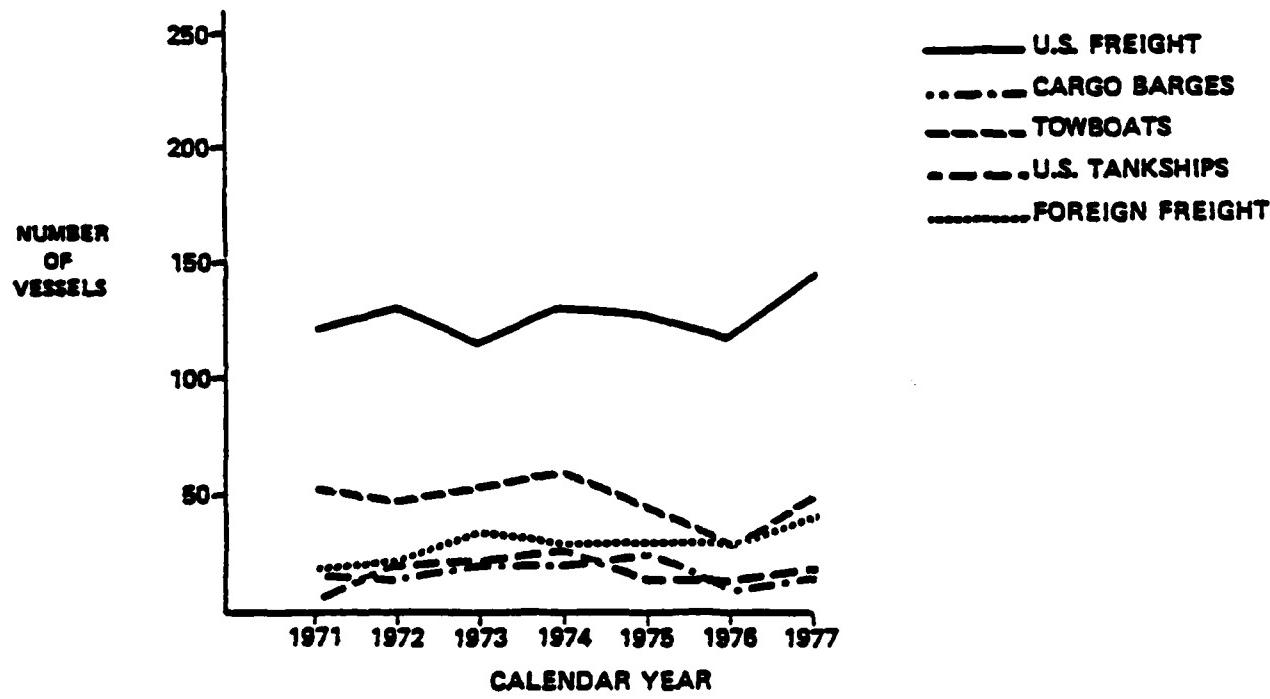
### GRAPH 2C: INLAND PACIFIC



## GRAPH 2D: WESTERN RIVERS



## GRAPH 2E: GREAT LAKES

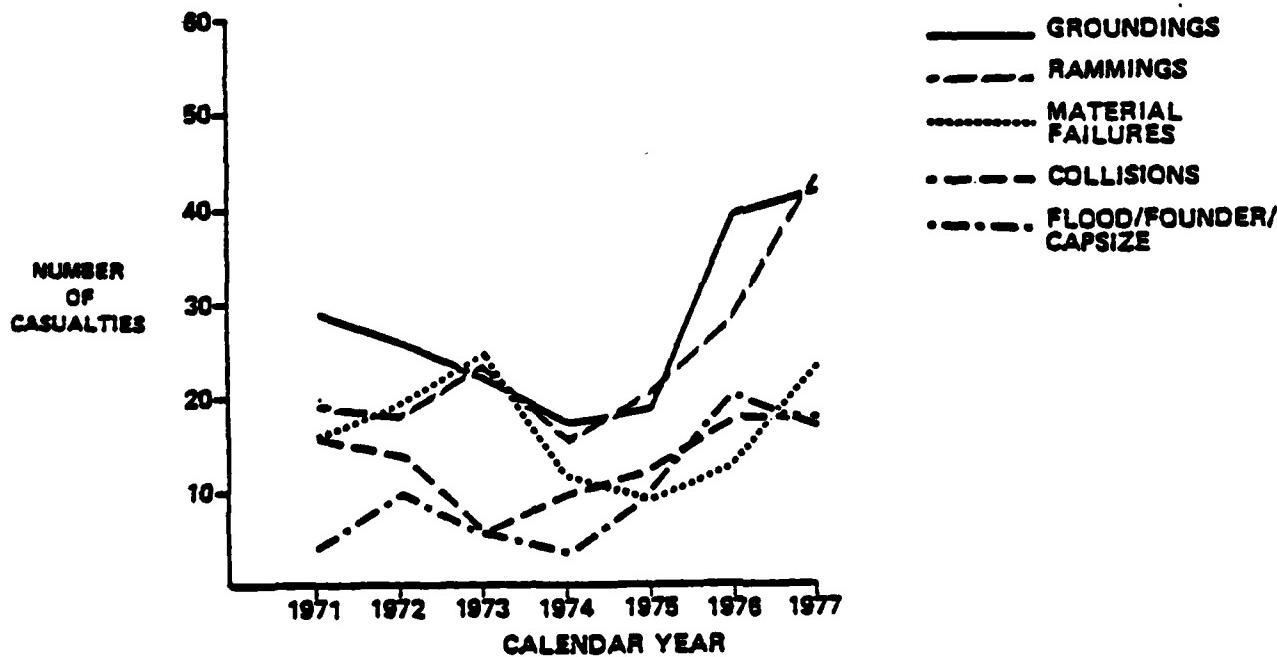


**GRAPH SERIES 3: TYPE OF CASUALTY BY CALENDAR YEAR  
FOR SEVEN PORT AREAS**

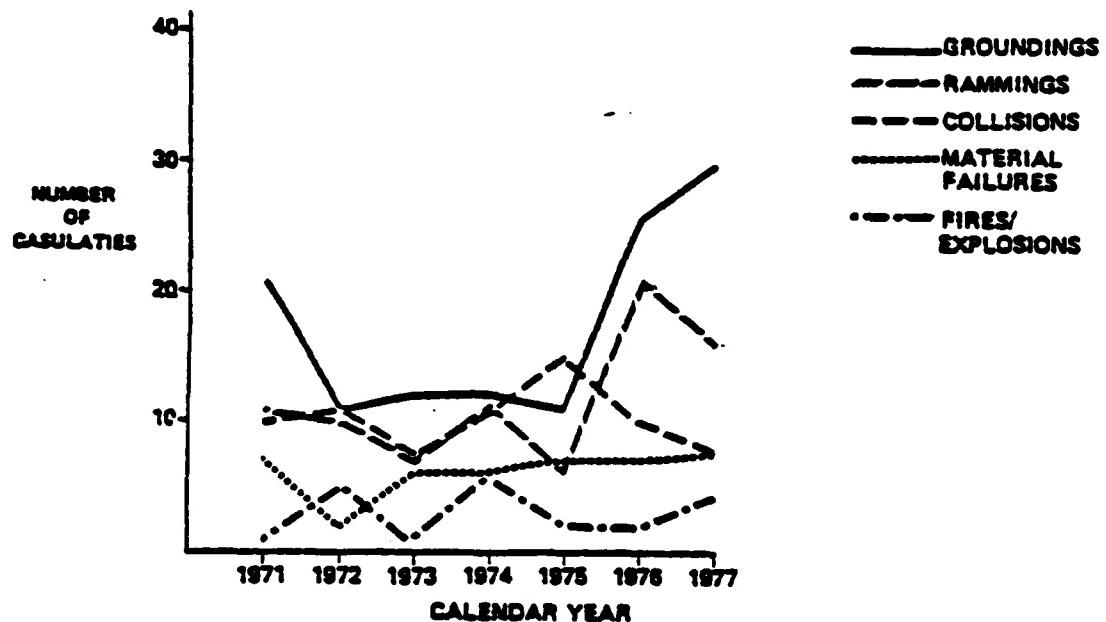
**AREAS:** NEW YORK CITY/LONG ISLAND  
DELAWARE BAY  
CHESAPEAKE BAY  
NEW ORLEANS/PASSES OF THE MISSISSIPPI RIVER  
HOUSTON/GALVESTON/PORT ARTHUR  
LOS ANGELES/LONG BEACH  
PUGET SOUND

**CASUALTY:** FIVE MOST FREQUENT IN EACH AREA  
TYPES

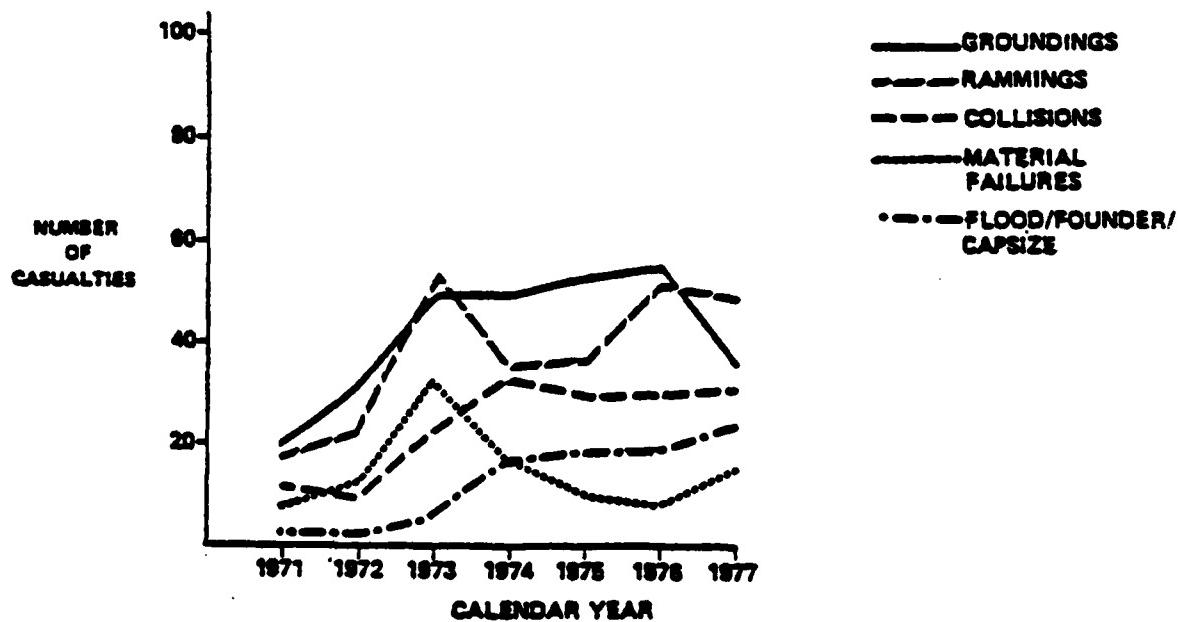
**GRAPH 3A: CHESAPEAKE BAY**



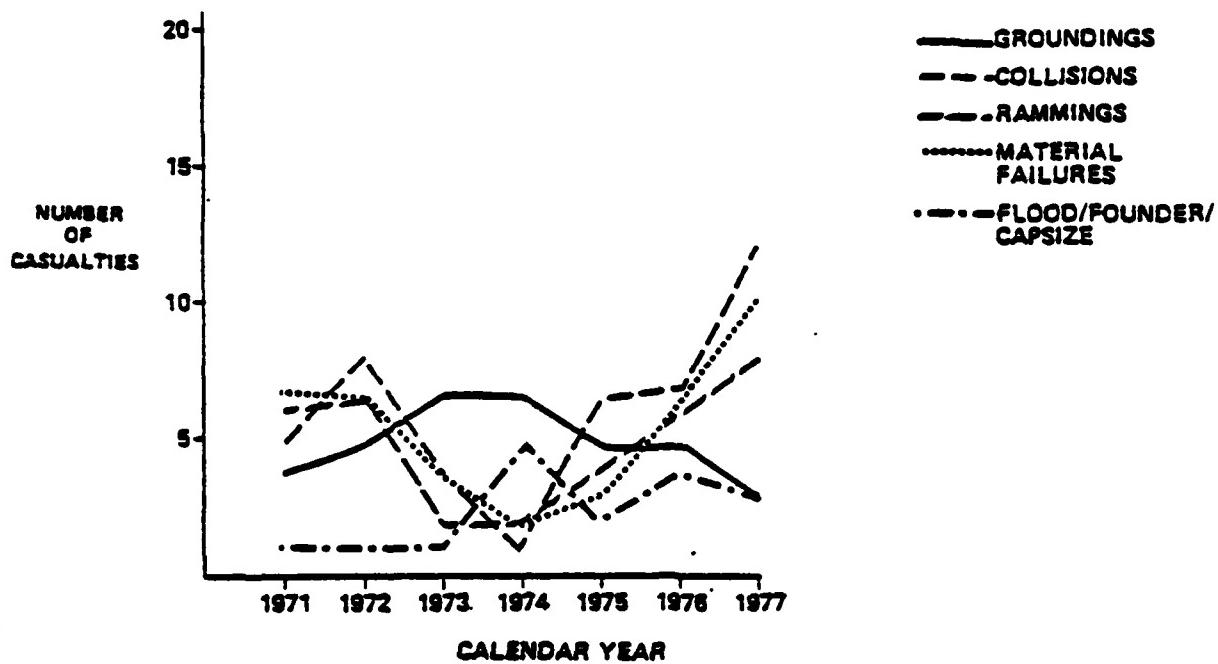
GRAPH 3B: DELAWARE BAY



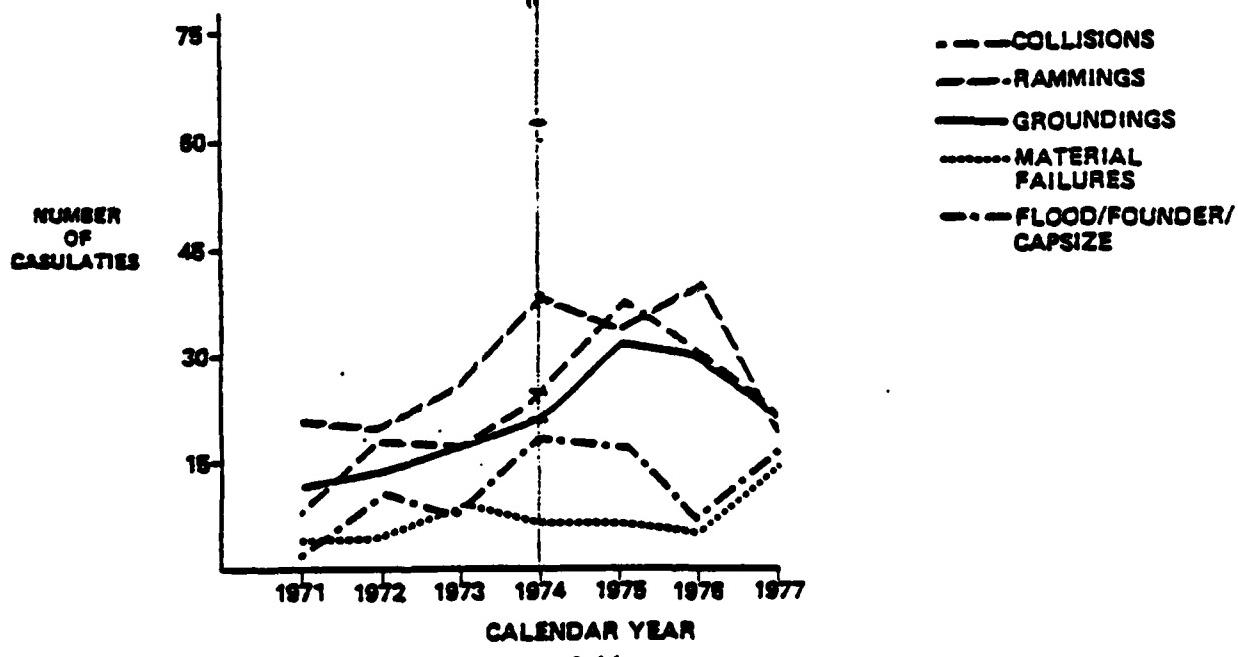
GRAPH 3C: HOUSTON/GALVESTON/PORT ARTHUR



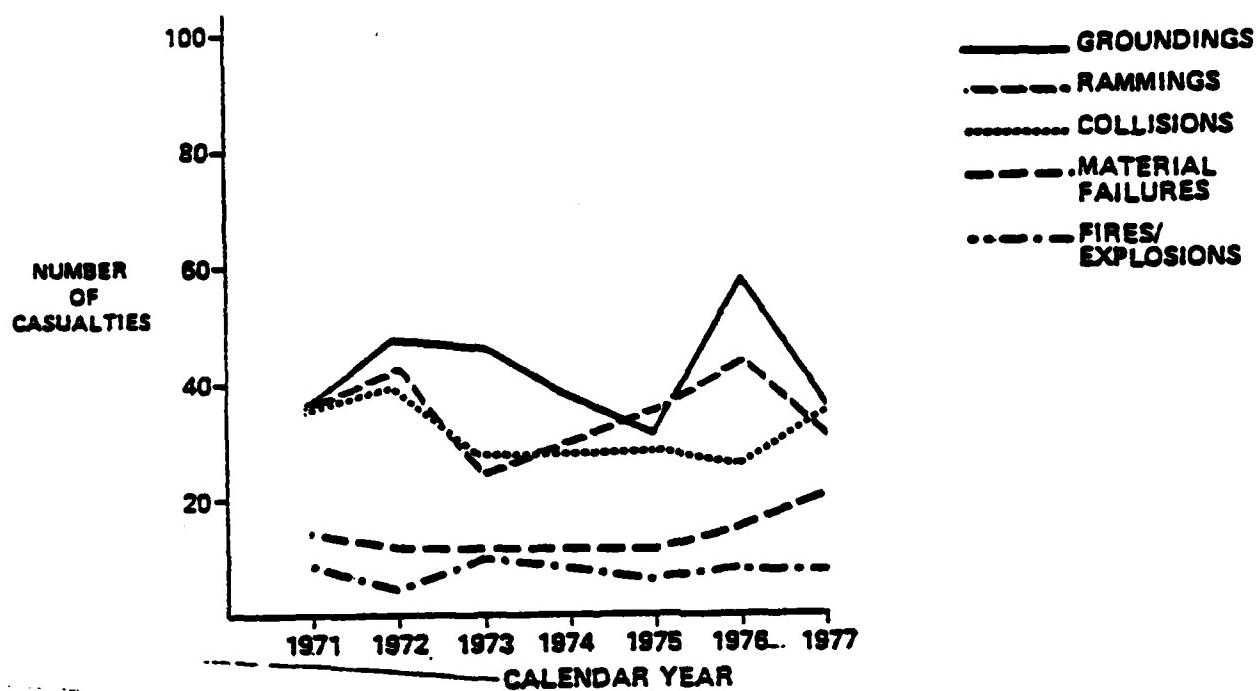
### GRAPH 3D: LOS ANGELES/LONG BEACH



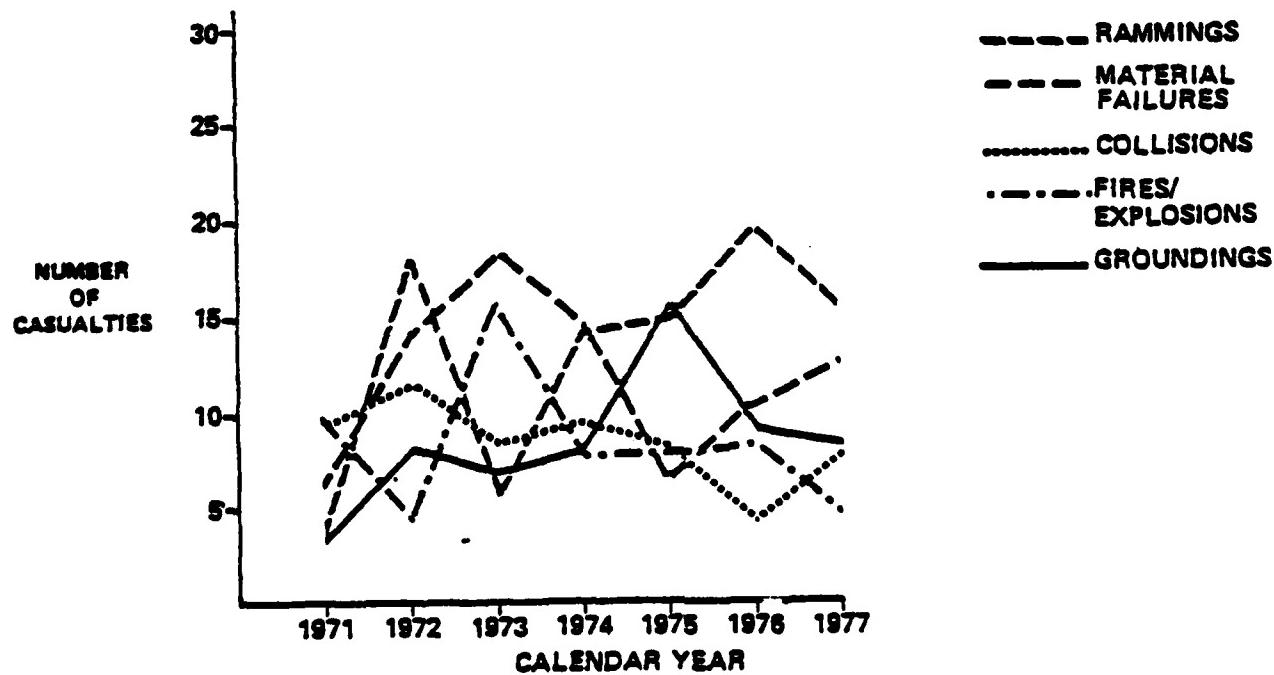
### GRAPH 3E: NEW ORLEANS/MISSISSIPPI RIVER PASSES



### GRAPH 3F: NEW YORK/LONG ISLAND



### GRAPH 3G: PUGET SOUND



VESSEL CASUALTY INVESTIGATIONS\* REPORTING OFFICE vs. FISCAL YEAR

1975 1976 1977 1978

	1975	1976	1977	1978
ALBANY	20	19	20	12
ANCHORAGE	80	106	100	76
BALTIMORE	43	81	98	96
BOSTON	32	62	60	64
BUFFALO	19	24	11	34
CHARLESTON	31	42	15	23
CHICAGO	87	81	85	114
CINCINNATI	5	16	9	13
CLEVELAND	19	18	11	27
CORPUS CHRISTI	141	102	71	115
DETROIT	37	37	29	35
DULUTH/ST. PAUL	19	26	24	57
DULUTH	32	34	32	39
GALVESTON	96	132	131	158
HONOLULU	56	96	47	28
INDUSTRIAL	40	85	72	108

1975 1976 1977 1978

	1975	1976	1977	1978
HUNTINGTON	43	36	15	33
JACKSONVILLE	31	68	63	38
JUNEAU	80	110	70	117
LOS ANGELES	67	80	95	123
LOUISVILLE	38	25	17	26
MEMPHIS	53	59	126	73
MIAMI	78	74	38	69
MOBILE	115	121	68	67
NASHVILLE	24	24	32	35
NEW ORLEANS	487	669	469	569
NEW YORK	216	285	239	160
PADUCAH	40	125	146	111
PORT ARTHUR	97	137	108	70
PHILADELPHIA	102	102	107	126
PITTSBURGH	41	33	31	26
PORTLAND, ME.	17	67	90	38

1975 1976 1977 1978

	1975	1976	1977	1978
PORTLAND, OR.	215	177	89	451
HAMPTON ROADS	107	165	194	200
PROVIDENCE	27	36	29	47
SAN DIEGO	25	39	30	63
SAVANNAH	40	47	34	20
SAN FRANCISCO	131	159	146	168
SEATTLE	129	133	82	102
ST. IGNACE	15	38	55	49
SAN JUAN	50	78	65	75
ST. LOUIS	74	79	55	92
TAMPA	88	116	111	85
TOLEDO	27	25	22	21
WILMINGTON, NC.	51	85	71	88
BREMEN LONDON ROTTERDAM				
YOKOHAMA SINGAPORE MANILA				
GUAM	6	4	2	10

\*COMPLETED TO FILE AT HEADQUARTERS

SECTION II  
PERSONNEL INJURIES & DEATHS

- A. Statistical Summary of Deaths/Injuries Due to a Vessel Casualty - FY 1978 . . . . . II-2
- B. Statistical Summary of Deaths on Board Commercial Vessels Not Involving a Vessel Casualty - FY 1978 . . . . . II-3
- C. Statistical Summary of Personnel Injuries on Board Commercial Vessels Not Involving a Vessel Casualty - FY 1978 . . . . . II-4
- D. Personnel Deaths/Injuries Due to a Vessel Casualty 1971-1978
  - 1. Nature of Casualty vs. Fiscal Year . . . . . II-5
  - 2. Cause of Casualty vs. Fiscal Year . . . . . II-6
- E. Personnel Deaths on Commercial Vessel (No Vessel Casualty) - 1971-1978
  - 1. Nature vs. Fiscal Year . . . . . II-7
  - 2. Cause vs. Fiscal Year . . . . . II-8
- F. Personnel Injuries on Commercial Vessels (No Vessel Casualty)
  - 1. Nature vs. Fiscal Year . . . . . II-9
  - 2. Cause vs. Fiscal Year . . . . . II-10

## Statistical Summary of Deaths/Injuries Due to a Vessel Casualty

## Statistical Summary of Deaths on Board Commercial Vessels Not Involving a Vessel Casualty

1 October 1977 to 30 September 1978		Period Year 1978													
		Period Year 1978													
		General Cause		Injuries		Diseases		Deaths		Injuries		Diseases		Deaths	
		External cause	Injury	Disease	Injury	Disease	Injury	Disease	Injury	Disease	Injury	Disease	Injury	Disease	
		Suicide	Homicide	Non-accidental injury	Accidental injury	Non-medical disease	Medical disease	Non-medical death	Medical death	Non-medical injury	Medical injury	Non-medical disease	Medical disease	Non-medical death	Medical death
<b>NUMBER OF DEATHS</b>															
Number of unregistered medical admissions															
Number of registered medical admissions															
<b>CAUSES OF DEATH</b>															
Diseases															
Personal indifference or negligence															
Unsafe conduct of service															
Personality disorder/neglect, insanity															
Unsafe practice															
Violation of law or regulation															
Human error															
Death by fire or explosion															
Cancer															
Poor maintenance or maintaining															
Insufficient lighting															
Inadequate tools or parts															
Failure of equipment															
Failure of system															
Inadequate site selection															
Inadequate tools or equipment															
Inadequate protective measures															
Prohibited use of tools or chemicals															
Mismanagement															
Misconduct															
<b>CAUSES OF DEATH</b>															
Diseases															
Personal indifference or negligence															
Unsafe conduct of service															
Cancer															
Poor maintenance or maintaining															
Insufficient lighting															
Inadequate tools or parts															
Failure of equipment															
Failure of system															
Inadequate site selection															
Inadequate tools or equipment															
Inadequate protective measures															
Prohibited use of tools or chemicals															
Mismanagement															
Misconduct															
<b>TYPES OF VESSELS INVOLVED</b>															
Unregistered vessel															
Passenger and cargo ship															
Passenger and ferryboat															
Ferry															
Cargo															
Tug															
Tug/Tugboat															
Tugboat															
Passenger															
Unregistered vessel															
Fishing															
Tug/Towing															
Passenger															
Other															
<b>TIME OF DAY</b>															
Daytime															
Nighttime															
Total															
<b>PARTICULARS OF PERSON DECLARED</b>															
Persons of deceased															
Deceased by Coast Guard															
Documented by Coast Guard															
40 million or less															
Documented by Coast Guard															
More than 40 million															
Passenger															
Long-distance passenger carrier															
Crewmember															
Other															
Activity engaged in															
Off duty															
Data department officer															
Engine department officer															
Service department officer															
Working cargo															
Fishing															
Drift															
Passenger															
Officer and crewman															
Injured															
Great Lakes															
Western Rivers															
None															
Other															
Foreign and unclassified															
<b>DEATHS</b>															
Deaths from drowning															
Deaths from drowning, sudden death															
Deaths from drowning, other															
Deaths from drowning, unknown															
Deaths from drowning, suicide															
Deaths from drowning, homicide															
Deaths from drowning, other															
Deaths from drowning, unknown															
Deaths from drowning, suicide															
Deaths from drowning, homicide															
Deaths from drowning, other															
Deaths from drowning, unknown															
Deaths from drowning, suicide															
Deaths from drowning, homicide															
Deaths from drowning, other															
Deaths from drowning, unknown															
Deaths from drowning, suicide															
Deaths from drowning, homicide															
Deaths from drowning, other															
Deaths from drowning, unknown															
Deaths from drowning, suicide															
Deaths from drowning, homicide															
Deaths from drowning, other															
Deaths from drowning, unknown															
Deaths from drowning, suicide															
Deaths from drowning, homicide															
Deaths from drowning, other															
Deaths from drowning, unknown															
Deaths from drowning, suicide															
Deaths from drowning, homicide															
Deaths from drowning, other															
Deaths from drowning, unknown															
Deaths from drowning, suicide															
Deaths from drowning, homicide															
Deaths from drowning, other															
Deaths from drowning, unknown															
Deaths from drowning, suicide															
Deaths from drowning, homicide															
Deaths from drowning, other															
Deaths from drowning, unknown															
Deaths from drowning, suicide															
Deaths from drowning, homicide															
Deaths from drowning, other															
Deaths from drowning, unknown															
Deaths from drowning, suicide															
Deaths from drowning, homicide															
Deaths from drowning, other															
Deaths from drowning, unknown															
Deaths from drowning, suicide															

1 October 1977 to 30 September 1978

## Statistical Summary of Personnel Injuries on Board Commercial Vessels Not Involving a Vessel Casualty

**PERSONNEL DEATHS / INJURIES  
DUE TO A VESSEL CASUALTY  
NATURE OF VESSEL CASUALTY VS. FISCAL YEAR**

	1971	1972	1973	1974	1975	1976 *	1977	1978
COLLISION	47 / 31	19 / 19	16 / 34	25 / 44	62 / 30	28 / 34	89 / 52	24 / 37
RAMMING	11 / 17	13 / 10	23 / 17	6 / 4	9 / 6	8 / 11	4 / 10	1 / 14
GROUNDING	17 / 4	11 / 2	2 / 3	7 / 7	5 / 1	4 / 10	1 / 4	8 / 4
FIRE/EXPLOSION	55 / 79	67 / 50	4 / 33	23 / 30	21 / 25	29 / 46	33 / 45	18 / 31
FLOODING	2 / 0	1 / 1	2 / 0	4 / 0	1 / 2	7 / 1	3 / 0	2 / 3
FOUNDERING	9 / 1	3 / 1	1 / 0	79 / 4	40 / 0	75 / 9	58 / 12	75 / 12
CAPSIZING	36 / 2	17 / 2	26 / 1	20 / 3	37 / 1	55 / 15	13 / 3	42 / 0
MATERIAL FAILURE	60 / 24	43 / 22	31 / 11	10 / 15	8 / 3	37 / 9	11 / 7	10 / 15
OTHER	6 / 5	3 / 3	14 / 2	21 / 4	7 / 6	27 / 16	4 / 3	0 / 5
TOTAL	243 / 163	177 / 110	141 / 101	195 / 111	190 / 74	270 / 151	216 / 136	180 / 121

\* FIFTEEN MONTH REPORTING PERIOD

**PERSONNEL DEATHS/INJURIES DUE TO A VESSEL CASUALTY**  
**CAUSE OF VESSEL CASUALTY VS. FISCAL YEAR**

	1971	1972	1973	1974	1975	1976	1977	1978
PERSONNEL FAULT	99 / 84	101 / 44	67 / 41	37 / 51	55 / 24	57 / 40	111 / 57	41 / 47
STORMS/ADVERSE WEATHER	23 / 1	9 / 1	22 / 1	44 / 7	21 / 2	54 / 11	62 / 5	56 / 8
CHANNEL CHARACTERISTICS	0 / 0	1 / 1	1 / 2	0 / 1	0 / 0	5 / 7	1 / 1	1 / 0
STRUCTURAL FAILURE	0 / 0	8 / 1	1 / 0	1 / 2	1 / 2	5 / 8	3 / 6	5 / 1
EQUIPMENT FAILURE	60 / 28	9 / 24	7 / 16	17 / 21	15 / 16	23 / 28	26 / 22	18 / 23
UNSEAWORTHY/IMPROPER MAINTENANCE	14 / 1	20 / 1	18 / 1	29 / 0	1 / 0	0 / 1	6 / 0	7 / 2
FAULT OTHER VESSEL/PERSONNEL	12 / 12	0 / 6	3 / 12	27 / 9	52 / 21	13 / 22	4 / 28	19 / 20
OTHER	33 / 37	29 / 32	21 / 28	40 / 20	43 / 9	111 / 34	23 / 17	33 / 20
TOTAL	243 / 163	177 / 110	140 / 101	195 / 111	190 / 74	270 / 151	216 / 136	180 / 121

**PERSONNEL DEATHS ON BOARD COMMERCIAL VESSELS**  
**(NO VESSEL CASUALTY)**  
**NATURE VS. FISCAL YEAR**

	1971	1972	1973	1974	1975	1976*	1977	1978
NATURAL CAUSES	154	147	124	108	144	172	114	118
HOMICIDE	5	7	8	2	2	7	0	3
SUICIDE	15	19	13	7	12	18	10	4
DISAPPEARANCE	0	0	0	3	0	16	13	3
SLIPS & FALLS LADDERS	5	8	8	4	5	10	2	8
SLIPS & FALLS GANGWAYS	3	2	3	0	2	1	1	1
SLIPS & FALLS ON DECK	0	0	0	2	1	0	1	0
SLIPS & FALLS OTHER	10	9	5	6	9	13	8	10
FALLS FROM VESSELS INTO WATER	124	100	110	106	113	97	77	98
FALLS INTO HOLDS OR TANKS	13	5	7	3	4	5	5	6
STRUCK BY OBJECT: FALLING OR MOVING	29	21	26	15	15	25	14	34
STRUCK AGAINST, CRUSHED, BUMPED INTO OBJECT	1	3	0	2	1	4	4	1
EXPOSURE & ASPHYXIATION	14	8	11	8	11	13	11	15
OPERATING MACHINERY OR TOOLS	2	0	0	0	0	0	0	2
BURNS & SCALDS (NON-ELECTRICAL)	1	0	4	2	2	1	2	1
ELECTRIC SHOCK & BURNS	0	1	0	1	4	3	4	1
CAUGHT IN LINES, CHAINS, OR WIRE ROPES	4	2	3	3	4	10	1	2
PINCHING AND CRUSHING	4	7	7	7	8	3	4	2
OVEREXERTION, STRAINS, AND SPRAINS	0	0	0	0	0	0	0	0
CUTS, LACERATIONS, PUNCTURES	0	0	0	2	0	1	0	0
ALTERCATIONS AND MISCONDUCT	0	0	0	3	3	2	0	0
MISCELLANEOUS	5	8	11	11	8	4	1	10
TOTAL	389	347	340	295	348	405	272	319

\* FIFTEEN MONTH REPORTING PERIOD

**PERSONNEL DEATHS ON COMMERCIAL VESSELS**  
**(NO VESSEL CASUALTY)**  
**CAUSE VS. FISCAL YEAR**

	1971	1972	1973	1974	1975	1976*	1977	1978
INTOXICATION	12	19	20	9	11	20	7	8
PHYSICAL DEFICIENCY OR HANDICAP	159	149	128	108	144	180	115	118
UNSAFE MOVEMENT OR POSTURE	15	2	15	88	63	25	18	11
PSYCHOLOGICAL INSANITY IMMATURITY	33	30	24	11	15	28	10	9
UNSAFE PRACTICE	65	42	33	27	10	36	16	3
VIOLATION OF LAW OR REGULATION	1	6	1	2	3	0	2	1
HUMAN ERROR	33	61	70	23	30	22	20	91
DECK SLIPPERY OR CLUTTERED	7	4	4	2	9	0	2	2
WEATHER	9	7	8	6	9	7	3	4
POOR MAINTENANCE	0	0	0	0	0	0	0	2
INADEQUATE LIGHTING	5	2	0	0	0	0	0	2
INADEQUATE RAILS OR GUARDS	8	2	0	0	0	0	2	0
EQUIPMENT FAILURE	20	11	22	15	11	29	23	10
INADEQUATE SUPERVISION	6	6	4	1	11	0	4	2
INADEQUATE TOOLS OR EQUIPMENT	1	0	0	0	1	0	0	0
INADEQUATE PROTECTIVE EQUIPMENT	3	1	2	2	16	17	6	3
IMPROPER USE OF TOOLS OR EQUIPMENT	1	2	0	2	1	2	1	0
MISCELLANEOUS	31	4	2	0	14	39	43	53
<b>TOTAL</b>	<b>389</b>	<b>348</b>	<b>333</b>	<b>296</b>	<b>348</b>	<b>405</b>	<b>272</b>	<b>319</b>

\* FIFTEEN MONTH REPORTING PERIOD

**PERSONNEL INJURIES ON COMMERCIAL VESSELS  
(NO VESSEL CASUALTY)  
NATURE VS. FISCAL YEAR**

	1971	1972	1973	1974	1975	1976*	1977	1978
SLIPS & FALLS LADDERS	176	145	146	150	120	132	165	128
SLIPS & FALLS GANGWAYS	21	23	22	20	19	29	21	17
SLIPS & FALLS ON DECK	142	180	159	142	129	195	249	217
SLIPS & FALLS OTHER	215	128	148	228	209	115	69	107
FALLS FROM VESSELS INTO WATER	12	12	10	22	5	8	9	7
FALLS INTO HOLDS OR TANKS	17	12	7	21	17	21	15	13
STRUCK BY OBJECT: FALLING OR MOVING	219	224	194	221	223	205	216	313
STRUCK AGAINST, CRUSHED, BUMPED INTO OBJECTS	101	71	37	27	50	97	147	130
EXPOSURE & ASPHYXIATION	15	4	6	5	11	10	4	4
OPERATING MACHINERY OR TOOLS	20	41	40	1	1	4	14	34
BURNS & SCALDS (NON-ELECTRIC)	64	56	55	69	52	54	53	47
ELECTRIC SHOCK & BURNS	6	2	5	8	7	8	4	10
CAUGHT IN LINES, CHAINS, OR WIRE ROPES	59	41	48	71	52	67	79	41
PINCHING & CRUSHING	107	65	91	96	108	58	88	57
OVEREXERTION, SPRAINS, AND STRAINS	165	109	85	69	83	111	172	173
CUTS, LACERATIONS, PUNCTURES	62	38	35	45	48	53	65	65
ALTERATIONS & MISCONDUCT	68	45	44	44	49	37	38	38
MISCELLANEOUS	47	47	36	26	33	20	11	39
<b>TOTAL</b>	<b>1,516</b>	<b>1,243</b>	<b>1,168</b>	<b>1,265</b>	<b>1,216</b>	<b>1,224</b>	<b>1,419</b>	<b>1,440</b>

\* FIFTEEN MONTH REPORTING PERIOD

**PERSONNEL INJURIES ON COMMERCIAL VESSELS**  
**(NO VESSEL CASUALTY)**  
**CAUSE VS. FISCAL YEAR**

	1971	1972	1973	1974	1975	1976*	1977	1978
INTOXICATION	49	48	28	35	39	23	27	16
PHYSICAL DEFICIENCY OR HANDICAP	44	26	22	67	42	35	39	33
UNSAFE MOVEMENT OR POSTURE	172	36	39	49	30	129	140	179
PSYCHOLOGICAL INSANITY IMMATURITY	58	41	36	24	42	37	39	38
UNSAFE PRACTICE	191	200	117	26	17	184	165	161
VIOLATION OF LAW OR REGULATION	5	5	3	6	3	9	3	4
HUMAN ERROR	755	648	677	707	677	605	730	725
DECK SLIPPERY OR CLUTTERED	32	41	55	68	62	38	85	72
WEATHER	53	69	63	68	76	34	65	75
POOR MAINTENANCE	16	9	10	9	9	8	15	11
INADEQUATE LIGHTING	2	3	1	4	3	4	1	6
INADEQUATE RAILS OR GUARDS	2	4	5	7	5	4	5	4
EQUIPMENT FAILURE	56	57	76	106	76	67	69	67
INADEQUATE SUPERVISION	12	12	14	31	32	13	5	4
INADEQUATE TOOLS OR EQUIPMENT	4	4	3	19	6	3	2	6
INADEQUATE PROTECTIVE EQUIPMENT	14	11	9	18	28	9	9	9
IMPROPER USE OF TOOLS OR EQUIPMENT	18	18	6	21	49	17	6	26
MISCELLANEOUS	31	11	4	0	20	5	14	4
<b>TOTAL</b>	<b>1,516</b>	<b>1,243</b>	<b>1,168</b>	<b>1,263</b>	<b>1,216</b>	<b>1,224</b>	<b>1,419</b>	<b>1,440</b>

\* FIFTEEN MONTH REPORTING PERIOD

### SECTION III

#### INSPECTED VESSELS OF THE UNITED STATES\*

I.	Year Built vs. Type of Vessel . . . . .	III-2
II.	Gross Tonnage vs. Type of Vessel . . . . .	III-3
III.	Inspecting Office vs. Type of Vessel . . . . .	III-4
IV.	Subchapter "D" Tank Barges Year Built vs. Hull Type . . . . .	III-7
V.	Subchapter "O/D" Tank Barges Year Built vs. Hull Type . . . . .	III-8
VI.	Cargo Vessels, Self-Propelled > 1600 Gross Tons: Year Built vs. Gross Tons . . . . .	III-9
VII.	Tankships, > 1600 Gross Tons Year Built vs. Gross Tons . . . . .	III-10

\* - As of 1 January 1979

**INSPECTED VESSELS**  
**YEAR BUILT VS. VESSEL TYPE**

TANK-SHIP	TANK-BARGE	CARGO & MISCELLANEOUS	CARGO-BARGE	LARGE PASSENGER/PASSAGE CRAFT	SMALL PASSENGER/PASSAGE CRAFT	RESEARCH/OCEANOGRAPHIC	SCHOOL SHIP	UNKNOWN	TOTAL
1900-1920	6	7	38	3	8	41			103
1921-1935	1	12	20	2	5	35			77
1926-1930	10	13	18	4	9	51			105
1931-1935	8	36	11	4	6	62			127
1936-1940	8	119	16	4	4	126	2		279
1941-1945	72	156	169	56	9	345	3	3	814
1946-1950	15	280	25	11	7	246			504
1951-1955	16	289	62	37	8	301	3	1	739
1956-1960	59	455	54	87	18	429	1		1,103
1961-1965	27	580	155	76	17	581	7	2	1,447
1966-1970	26	903	140	279	9	713	7		2,077
1971-1975	54	815	225	167	16	767	6	2	2,032
1976-1978	29	309	172	170	12	486		15	1,193
UNKNOWN		12	6	10		38		65	131
<b>TOTAL</b>	<b>355</b>	<b>3,986</b>	<b>1,111</b>	<b>890</b>	<b>128</b>	<b>4,223</b>	<b>23</b>	<b>9</b>	<b>86</b>
									<b>10,811</b>

**INSPECTED VESSELS**  
**GROSS TONS VS. VESSEL TYPE**

TANK-SHIP	TANK-BARGE	CARGO & MISCELLANEOUS	CARGO BARGE	LARGE PASSENGER	SMALL PASSENGER	RESEARCH OCEANOGRAPHIC	SCHOOL SHIP	UNKNOWN	TOTAL
LESS THAN 100	41	149	128	21	5	4,220	1	2	6 4,573
100-299	11	220	241	91	28			1	592
300-1599	35	2,907	164	515	57		16	1	10 3,705
1600 & OVER	268	705	574	258	38		6	6	4 1,859
UNKNOWN		5	4	5			3		65 82
<b>TOTAL</b>	<b>355</b>	<b>3,986</b>	<b>1,111</b>	<b>890</b>	<b>128</b>	<b>4,223</b>	<b>23</b>	<b>9</b>	<b>86 10,811</b>

	TANK SHIPS	TANK BARGES	CARGO & MISCELLA. NEOUS	CARGO BARGES	LARGE PASSENGER	SMALL PASSENGER	RESEARCH/OCEANOGRAFIC	SCHOOL SHIPS	UNKNOWN	TOTAL
1st DISTRICT	9	9	10	4	6	179	2	2		
	BOSTON		6	2	4	0	7	86	0	221
	PORLAND, ME.		6	2	4	0	7	86	0	107
	PROVIDENCE	1	6	4	1	0	0	39	0	51
2nd DISTRICT	1	248	5	4	1	34				293
	ST. LOUIS		13	1	0	0	10			24
	CINCINNATI		185	0	1	0	13			199
	HUNTINGTON		97	0	3	2	7			109
3rd DISTRICT	LOUISVILLE		177	8	1	1	53			240
	MEMPHIS		9	2	0	1	26			38
	MINNEAPOLIS/ST. PAUL		75	0	4	0	16			96
	NASHVILLE		101	0	3	0	6			110
4th DISTRICT	PADUCAH		99	0	2	2	7			112
	PITTSBURGH									
	NEW YORK	51	165	179	53	30	513	1	1	997
	ALBANY	1	0	1	5	2	5	0	0	16
5th DISTRICT	PHILADELPHIA	14	25	3	3	1	194	0	0	246
	HAMPTON ROADS									
	BALTIMORE	37	94	38	18	4	76	0	0	267
	WILMINGTON, N.C.	19	32	26	5	1	87	0	0	172
		0	12	4	1	4	43	1	0	65

**INSPECTED VESSELS**  
**INSPECTING OFFICE VS. VESSEL TYPE (cont.)**

TANK SHIPS	TANK BARGES	CARGO & MISCELLANEOUS	CARGO BARGES	LARGE PASSENGER	SMALL PASSENGER	RESEARCH/OCEAN-GRAPHIC	SCHOOL SHIPS	UNKNOWN	TOTAL
<b>7th DISTRICT</b>									
JACKSONVILLE	44	34	8	19	2	76	0		183
TAMPA	5	14	10	36	62	0			127
CHARLESTON	0	10	6	1	28	2			47
SAVANNAH	2	9	8	1	15	0			35
SAN JUAN	0	9	11	7	56	0			83
MIAMI	0	14	6	19	125	3			168
<b>8th DISTRICT</b>									
NEW ORLEANS	13	1,378	288	318	17	740	2	0	5,2761
GALVESTON	11	122	17	10	2	60	1	1	224
HOUSTON	3	252	38	16	0	0			309
CORPUS CHRISTI	3	28	6	5	0	39	0		81
MOBILE	24	50	43	16	2	135	0		270
PORT ARTHUR	21	419	59	37	1	55		1	615
<b>9th DISTRICT</b>									
CLEVELAND	2	0	27	0	0	3	0		32
BUFFALO	0	0	3	0	0	16	0		19
CHICAGO	7	84	39	16	4	90	1		243
DULUTH	1	2	20	0	1	47			71
TOLEDO	1	0	19	2	0	33			55
DETROIT	1	11	13	2	2	23			52
ST. IGNACE	2	9	0	0	0	38			50

**INSPECTED VESSELS**  
**INSPECTING OFFICE VS. VESSEL TYPE (cont.)**

	TANK SHIPS	TANK BARGES	CARGO & MISCELL. VEHICLES	CARGO BARGES	LARGE PASSENGER	SMALL PASSENGER	RESEARCH OCEANIC	SCHOOL SHIPS	UNKNOWN	TOTAL
<b>11th DISTRICT</b>										
LOS ANGELES/LONG BEACH	13	23	37	22	2	238	3	0		318
SAN DIEGO	4	4	10	4	0	76	2	0	2	102
<b>12th DISTRICT</b>										
SAN FRANCISCO	18	18	56	23	5	220	3	3		346
<b>13th DISTRICT</b>										
PORLAND, ORE.	21	41	19	46	1	393	1	3	525	
SEATTLE	5	44	23	117	25	101	1	1	312	
<b>14th DISTRICT</b>										
HONOLULU	4	6	11	42	0	86	0		1	150
GUAM	7	1	12	3	0	12	1			26
<b>17th DISTRICT</b>										
JUNEAU	2	19	12	2	0	39	0	2	76	
VALDEZ	0	0	0	0	0	1	0		1	1
ANCHORAGE	1	23	6	9	0	9	0		49	
PORT UNKNOWN				4	5	13		62	86	
<b>TOTALS</b>	<b>355</b>	<b>3,986</b>	<b>1,111</b>	<b>890</b>	<b>128</b>	<b>4,223</b>	<b>23</b>	<b>9</b>	<b>86</b>	<b>10,811</b>

**TANK BARGES  
INSPECTED UNDER SUBCHAPTER D  
CODE OF FEDERAL REGULATIONS PART 46  
YEAR BUILT VS. HULL TYPE**

	DOUBLE SIDE DOUBLE BOTTOM	DOUBLE SIDE PARTIAL DOUBLE BOTTOM	SINGLE SIDE SINGLE BOTTOM	SINGLE SIDE DOUBLE BOTTOM	PARTIAL DOUBLE BOTTOM	SINGLE SIDE SINGLE BOTTOM	SINGLE SIDE PARTIAL DOUBLE BOTTOM	MULTI- CONFIGU- RATION OTHER	UNKNOWN	TOTAL
1900-1939						28	2		1	31
1931-1935		1				12	2		1	16
1936-1940	2	1	1		107	1	3	115		
1941-1945	1	2			140	4	3	150		
1946-1950	7	1	7		204	4	3	226		
1951-1955	11	1	9		236	3	1	261		
1956-1960	27	1	14	1	272	4	3	324		
1961-1965	75	6	4	2	1	209	11	3	309	
1966-1970	96	3	12	6	2	404	5	11	539	
1971-1975	128	16	59	1		182	7	15	410	
1976-1978	65					23	5	44	138	
UNKNOWN	2	1					4		1	8
<b>TOTAL</b>	<b>414</b>	<b>27</b>	<b>110</b>	<b>13</b>	<b>3</b>	<b>1,841</b>	<b>48</b>	<b>91</b>	<b>2,547</b>	

**TANK BARGES**  
**INSPECTED UNDER SUBCHAPTER O/D**  
**CODE OF FEDERAL REGULATIONS PART 46**  
**YEAR BUILT VS. HULL TYPE**

YEAR BUILT	DOUBLE SIDE DOUBLE BOTTOM	DOUBLE SIDE PARTIAL DOUBLE BOTTOM	DOUBLE SIDE SMOKE BOTTOM	SINGLE SIDE DOUBLE BOTTOM	SINGLE SIDE PARTIAL DOUBLE BOTTOM	SINGLE SIDE SMOKE BOTTOM	HULL CONFIGU- RATION	UNKNOWN	TOTAL
1900-1930						1	OTHER		1
1931-1935									0
1936-1940						3	1		4
1941-1945						3			3
1946-1950	1		2		38	2	2	45	
1951-1955			5	2	4	1			10
1956-1960	26		12		26	17	2	83	
1961-1965	131	3	23	45	11	3	218		
1966-1970	243	7	12	34	5				301
1971-1975	288	35	31	14	24	10	403		
1976-1980	101	2		7	1	57	168		
UNKNOWN	1	1						1	3
<b>TOTAL</b>	<b>791</b>	<b>48</b>	<b>87</b>	<b>3</b>	<b>0</b>	<b>177</b>	<b>68</b>	<b>75</b>	<b>1,269</b>

**INSPECTED CARGO VESSELS**  
**SELF-PROPELLED 1600 GROSS TONS AND OVER**  
**YEAR BUILT VS. GROSS TONS**

	1,000- 4,999	5,000- 9,999	10,000- 14,999	15,000- 19,999	20,000- 24,999	25,000- 29,999	30,000- 34,999	35,000- 39,999	40,000- 45,000	UNKNOWN	TOTAL
1900-1930	6	47	1								54
1931-1935	2										2
1936-1940	1	4	2								7
1941-1945	2	16	59	14							111
1946-1950	2	5	5	1							13
1951-1955	1	8	27	8							44
1956-1960	4	5	10	2							21
1961-1965	24	53	7								84
1966-1970	3	13	22	23	4	1					66
1971-1975	4	1	5	11	17	11	11				68
1976-1978	5	2	5	5					2	1	21
UNKNOWN											
<b>TOTAL</b>	<b>30</b>	<b>145</b>	<b>189</b>	<b>71</b>	<b>21</b>	<b>12</b>	<b>13</b>	<b>1</b>	<b>9</b>	<b>491</b>	

111-9

**INSPECTED TANKSHIPS**  
**1600 GT AND OVER**

**YEAR BUILT VS. GROSS TONS**

	1600- 4,999	5,000- 9,999	10,000- 14,999	15,000- 19,999	20,000- 24,999	25,000- 29,999	30,000- 34,999	35,000- 39,999	40,000- 49,999	50,000- 59,999	> - 100,000	UNKNOWN	TOTAL
1900-1930	1	1											2
1931-1935													0
1936-1940	2	1											3
1941-1945	2	5	14	18									59
1946-1950		1		4									5
1951-1955	1		7	17	4								30
1956-1960	2	1	1	23	19	6	1	1	1				54
1961-1965	1	1		6	1	9	2	1	1				22
1966-1970	3			1	11	2	5						22
1971-1975	1			9	8	1	10	4	6	3			42
1976-1978	3	1		2	6			7	6	4			29
UNKNOWN													
<b>TOTAL</b>	<b>16</b>	<b>11</b>	<b>42</b>	<b>80</b>	<b>49</b>	<b>15</b>	<b>7</b>	<b>15</b>	<b>13</b>	<b>13</b>	<b>7</b>		<b>268</b>

SECTION IV

DOCUMENTED VESSELS OF THE UNITED STATES

I. Service vs. Decade Built . . . . .	IV-2
II. Service vs. Propulsion . . . . .	IV-3
III. Service vs. Gross Tonnage . . . . .	IV-4
IV. Homeport vs. Service . . . . .	IV-5

**DOCUMENTED VESSELS OF THE UNITED STATES  
SERVICE vs. DECADE BUILT**

	TO 1919	1920 - 1929	1930 - 1939	1940 - 1949	1950 - 1959	1960 - 1969	1970 - 1979	TOTAL
CABLE		1		3	2	2	1	9
DREDGE	28	36	34	67	116	131	99	471
OIL EXPLOITATION	4	16	22	96	406	1,009	1,090	2,643
FERRY	2	27	31	55	65	52	32	264
FIREBOAT	1	4	3	7	9	9	4	37
FREIGHT	307	339	273	1,220	2,534	5,372	11,118	21,163
FISHING	1,114	1,370	1,703	3,148	4,049	4,954	7,783	26,123
LIGHTERING		1	2	5	10	4	6	28
PASSENGER	146	183	443	940	1,424	2,442	2,183	7,766
PILE DRIVING	6	4	5	12	20	10	7	54
PLEASURE	8	15	10	16	5	8	18	80
PILOT BOAT	1	2	5	9	21	45	36	119
POLICE BOAT		1		2	4	19	17	43
PATROL BOAT			2	9	8	14	20	53
TANKER	13	31	86	366	320	967	927	2,910
TOWING	384	224	353	1,214	1,450	1,587	1,634	6,846
YACHTING	365	703	1,430	1,763	3,341	17,064	25,261	49,929
MISCELLANEOUS	71	73	97	294	269	329	318	1,451
<b>TOTAL</b>	<b>2,450</b>	<b>3,030</b>	<b>4,506</b>	<b>11,228</b>	<b>14,253</b>	<b>34,018</b>	<b>50,514</b>	<b>119,999</b>

**DOCUMENTED VESSELS OF THE UNITED STATES  
SERVICE VS. PROPULSION**

	NON SELF PROPELLED	ELECTRIC DRIVE	GASOLINE ENGINE	DIESEL ENGINE	STEAM ENGINE	SAIL	JET DRIVE	TOTAL
CABLE	4	1		4				9
DREDGE	430	3	6	31	1			471
OIL EXPLOITATION	237	4	10	2,389	2		1	2,643
FERRY	67	27	12	135	18		5	264
FIREBOAT		3	3	30			1	37
FREIGHT	19,681	32	142	722	573	12	1	21,163
FISHING	48	1	5,162	20,816		43	51	26,123
LIGHTERING	26			2				28
PASSENGER	33	33	2,396	5,223	30	33	17	7,763
PILE DRIVING	48		5	11				64
PLEASURE	1		36	43				80
PILOT BOAT			8	111				119
POLICE BOAT	1		35	7				43
PATROL BOAT			22	30			1	53
TANKER	2,548	67	2	112	181			2,910
TOWING		75	107	6,638	26		-	6,846
YACHTING	34	1	27,029	22,417	6	438	4	49,929
MISCELLANEOUS	471	40	154	771	3	6	7	1,452
<b>TOTAL</b>	<b>23,629</b>	<b>287</b>	<b>35,129</b>	<b>59,492</b>	<b>840</b>	<b>534</b>	<b>88</b>	<b>119,999</b>

**DOCUMENTED VESSELS OF THE UNITED STATES  
SERVICE VS. GROSS TONS**

	<b>\$15</b>	<b>16-100</b>	<b>101-200</b>	<b>201-300</b>	<b>301-1600</b>	<b>&gt;1600</b>	<b>TOTAL</b>
CABLE		5	1	2		1	9
DREDGE	19	118	61	44	217	12	471
OIL EXPLOITATION	448	1,339	452	203	107	94	2,643
FERRY	10	133	25	12	49	35	264
FIREBOAT	2	16	10	4	5		37
FREIGHT	267	889	1,546	3,429	14,006	1,026	21,163
FISHING	11,974	11,978	1,773	108	285	5	26,123
LIGHTERING		5	2	1	17	3	28
PASSENGER	3,819	3,863	14	11	36	23	7,766
PILE DRIVING	10	31	12	3	8		64
PLEASURE	47	30	1	1	1		80
PILOT BOAT	30	78	4	2	5		119
POLICE BOAT	35	6	1		1		43
PATROL BOAT	26	27					53
TANKER	5	70	56	48	1,913	818	2,910
TOWING	666	3,468	1,619	493	599	1	6,846
YACHTING	27,420	22,237	240	21	10	1	49,929
MISCELLANEOUS	268	559	131	87	234	172	1,451
<b>TOTAL</b>	<b>45,046</b>	<b>44,852</b>	<b>5,948</b>	<b>4,669</b>	<b>17,493</b>	<b>2,191</b>	<b>119,999</b>

**DOCUMENTED VESSELS OF THE UNITED STATES  
HOMEPORT VS. SERVICE**

		TOTAL	
	MICRO-LANDINGS		
	VACUUMING		
	TOWING		
	TANKERS		
	PATROL BOATS		
	POLICE BOATS		
	PILOT BOATS		
	PLASMA		
	PASSENGER		
	LIGHTERING		
	REHAWK		
	FERRY		
	OIL EXPLORATION		
	CABLES		
ALABAMA			
MOBILE-GULF	13 6	14 513	106 1110
MOBILE RIVERS		132 1	1 222
ALASKA			
JUNEAU	3 7 1	286 2174	86 35 22 79 138 33 2869
KETCHIKAN	2 1	140 553	15 6 1 29 17 17 782
SITKA		26 201	10 28 23 2 290
WRANGELL		42 361	8 2 22 7 6 451
CALIFORNIA			
EUREKA		429 14	2 13 2 461
LA/LS	6 10 2	2 110 667	302 4 5 12 68 1978 46 3212
SAN DIEGO		6 393	150 1 1 11 515 22 1102
SAN FRANCISCO	6 2 12	140 1513	248 4 2 54 168 1525 70 5024
CONNECTICUT			
BRIDGEPORT	3	2 34	16 1 9 676 5 748
HARTFORD	10 1	2 6	1 14 422 456
NEW HAVEN		1 20	11 5 284 4 339
NEW LONDON		7 44	47 9 353 11 471
DELAWARE			
WILMINGTON	10 66	3 3595	1 160 792 468 2601 62 7829 13 2153 20 2671
DIST.OF COLUMBIA			
WASHINGTON	3 1	6 657	218
FLORIDA			
APALACHICOLA	1	135	11 1 7 11 1 172
JACKSONVILLE	1 3	94 464	115 2 4 21 92 516 11 325

HOMEPORT VS. SERVICE

	CABLE	GREDGE	OIL EXPLOITA-	FERRY	PIREBOAT	FREIGHT	FISHING	LIGHTERING	PASSENGER	PILE DRIVING	PLEASURE	PILOT BOAT	POLICE BOAT	PATROL BOAT	TANKER	TOWING	YACHTING	MICEL- LANGEUS	TOTAL
FLORIDA Cont'd																			
KEYWEST	1																		
MIAMI	1	16																	
PENSACOLA		16																	
TAMPA	1	17																	
WEST PALM BEACH		1																	
GEORGIA																			
BRUNSWICK																			
SAVANNAH		6																	
HAWAII																			
HONOLULU		1																	
ILLINOIS																			
CHICAGO-LAKE	1	5	6		1	22	18	56			1	8	19	2419	19	2575			
CHICAGO-RIVER		3	2			616	3	17			31	81	123	14	715				
INDIANA																			
EVANSVILLE																			
KENTUCKY																			
LOUISVILLE	3	11	562		2	8			1	37	160	894	13	1621					
LOUISIANA																			
BATON ROUGE-GULF	6	55	4		6	20	16		1	12	104	14	245						
BATON ROUGE-RIVER	15	1	19		57	1	17			43	122	10	20	204					
MISSISSIPPI																			
MONROE	1	547			54	768	17		1	97	386	12	5	1620					
LAKE CHARLES		55			23	92	3		1	5	50	12	3	244					
MORGAN CITY	5	601	1		54	279	7			42	258	14	31	1303					
NEW ORLEANS-GULF	1	9	710		1874	561	55		1	3	41	103	126	62	3767				

**DOCUMENTED VESSELS OF THE UNITED STATES  
HOMEPORT VS. SERVICE**

CARLS	DREDGE	DRYDOCK	EMERG'TA.	FISHING	FREIGHT	GUESTS	DRIVING	PLATEAU'S	PLAZA'S	POLICE	PORTS BOAT	PATROL SOAT	TANKER	TOWING	VACUUMS	MERCER.	LUMBER	TRAIL		
<b>LOUISIANA Cont'd</b>																				
<b>NEW ORLEANS RIVER</b>	10	21	10	2	404	6	6	14	2	9					178	611	3	41	1349	
<b>MAINE</b>																				
<b>BANGOR</b>																				
<b>BAR HARBOR</b>	1		8	60		17									133	1	220		24	
<b>BATH</b>			11	115		29									1	5	115	2	278	
<b>BELFAST</b>			23		3										1	2	50	79		
<b>CALAIS</b>																				
<b>EASTPORT</b>	5	3	3	1											6	17				
<b>JONESPORT</b>	5	31	1												10	10	67			
<b>PORTLAND</b>	3	1	22	89		36	2								8	6	205	1	367	
<b>ROCKLAND</b>	2	5	15	145		21									1	1	4	161	5	360
<b>MARYLAND</b>																				
<b>BALTIMORE</b>	5	4	78	375		250	1	8	18	2	58	81	1518	35	2455					
<b>CAMBRIDGE</b>	1		14	488		36	1													
<b>CRISPFIELD</b>	1	26	315	47												5	141	4	692	
<b>MASSACHUSETTS</b>																				
<b>BOSTON</b>	4	1	4	28	150	11	127	1	2						16	43	1710	22	2119	
<b>FALL RIVER</b>			1	5	1												53	72		
<b>GLouceSTER</b>	1		6	236		76						1	1	1	1	1	267	2	519	
<b>NEW BEDFORD</b>	2		1	365		64									5	17	448	10	919	
<b>PLYMOUTH</b>		4	172		97	1									3	301	6	586		
<b>SALEM</b>	1	1	57		34										4	418	1	521		
<b>MICHIGAN</b>																				
<b>DETROIT</b>		23	3	59	5										1	4	39	440	9	621

**DOCUMENTED VESSELS OF THE UNITED STATES  
HOMEPORT VS. SERVICE**

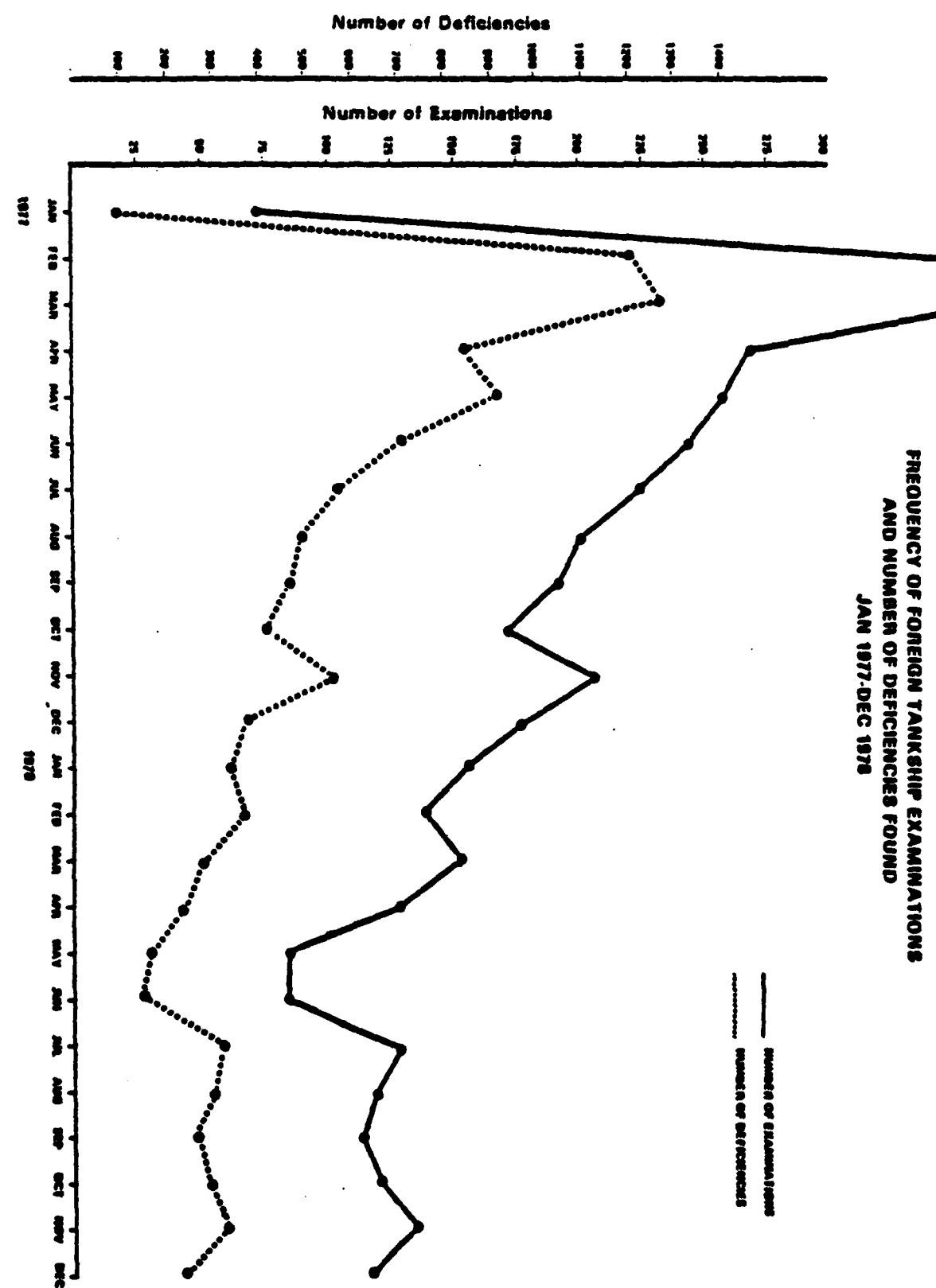
**DOCUMENTED VESSELS OF THE UNITED STATES  
HOMEPORT VS. SERVICE**

**DOCUMENTED VESSELS OF THE UNITED STATES  
HOMEPORT VS.SERVICE**

TENNESSEE Cont'd	CABLE	DREDGE	OIL EXPLOITA-TION	FERRY	FIREFBOAT	FREIGHT	FISHING	LIGHTERING	PASSENGER	PILE DRIVING	PLEASURE	PILOT BOAT	POLICE BOAT	PATROL BOAT	TANKER	TOWING	YACHTING	MISCEL-LANOUS	TOTAL
NASHVILLE	2	1	4	18	1														
TEXAS																			
BROWNSVILLE		2			8	521		12		1		2	4	16	2	36	24	2	356
CORPUS CHRISTI	5	112	6		13	644	48	1	2		22	85	180	12	112				
GALVESTON	2	56	4		18	637	45	2	2		30	68	92	36	222				
HOUSTON	15	267	2		211	163	44		1		122	255	748	116	2001				
PORT ARTHUR	1	17			39	103	7	1		22	119	64	36	481					
VIRGINIA																			
CAPE CHARLES			1		3	172	20				1	25	2	222					
NORFOLK	28		7		107	621	142	1	25	31	195	262	25	351					
REEVESVILLE					22	496	23			2	4	153	4	724					
WASHINGTON																			
ABERDEEN	1				4	413	113	2			11	10	1	552					
BELLINGHAM	1		3		40	664	12	1		1	21	165	6	891					
PORT ANGELES					3	157	11	1	2		3	33	2	216					
PORT TOWNSEND					3	60	7				2	38	110						
SEATTLE	1	10	4		28	1407	1302	114	6	28	1	1	3	15	222	1392	57	2729	
TACOMA					4	59	323	1	20	5	1	26	343	4	786				
WISCONSIN																			
MILWAUKEE-LAKE			5	1	60	92	103				6	26	706	23	1022				
MILWAUKEE-RIVER					451	11	23				1	21	6	2	422				
TERRITORIES																			
GUAM						1		7				8	7	23					
PUERTO RICO & V.I.	7	1	38	94	1	137	1	1			1	20	403	15	221				

SECTION IV  
FOREIGN FLAG TANK VESSEL EXAMINATION PROGRAM

I. Frequency of Examinations and Number of Deficiencies Found - January 1977-December 1978 . . . . .	V-2
II. Percent Examinations vs. Percent Deficiencies for Selected Flags . . . . .	V-3
III. Comparison of Deficiencies/Examinations for Selected Fleets - 1977 and 1978 . . . . .	V-4
IV. Most Frequent Deficiencies by Major Flag . . . . .	V-5
V. Vessel Age vs. Deficiency Type . . . . .	V-6
VI. Statistics for Major Ports . . . . .	V-7



# Foreign Tanker Examination Program

## Percent Examinations Vs. Percent Deficiencies

**Jan. 77 – Dec. 78**

Country	Vessel Examinations		Deficiencies	
	No.	& % of Total	No.	& % of Total
Liberia	1486	34.9	3822	33.5
Panama	302	7.1	680	6.0
Greece	638	15.0	2576	22.6
Norway	470	11.0	1301	11.4
Great Britain	337	7.9	736	6.4
Japan	122	2.8	349	3.1
Singapore	131	3.1	160	1.4
Netherlands	63	1.5	36	0.3
Italy	81	1.9	216	1.9
France	51	1.2	131	1.2
Finland	50	1.2	122	1.1
Denmark	44	1.0	32	0.3
W. Germany	68	1.6	196	1.7
S. Korea	42	0.9	135	1.2
USSR	48	1.1	125	1.1
Spain	32	0.7	155	1.4
Mexico	44	1.0	156	1.4

# Foreign Tanker Examination Program

**Comparison of Deficiencies/Examinations for Selected Fleets During 1977 & 1978**

Registry	1977			1978		
	Num. of Def.	Num. of Exams	Def./Exam	Num. of Def.	Num. of Exams	Def./Exam
Liberia	3079	1016	3.03	743	471	1.58
Panama	457	201	2.27	223	101	2.21
Greece	1703	387	4.40	873	251	3.46
Norway	947	311	3.05	354	159	2.23
U.K.	470	206	2.28	268	131	2.03
Japan	168	70	2.4	181	52	3.48
Singapore	79	76	1.05	81	58	1.45
Italy	150	51	2.94	68	30	2.2
Mexico	74	23	3.21	82	21	3.90
Spain	118	23	5.13	37	9	4.11
W. Germany	143	48	2.97	53	20	2.65
Netherlands	20	44	.45	16	19	.84
<b>Total (All Exams)</b>	<b>8135</b>	<b>2769</b>	<b>2.94</b>	<b>3281</b>	<b>1487</b>	<b>2.21</b>

**FOREIGN TANKER EXAMINATIONS  
MOST FREQUENT DEFICIENCIES  
BY MAJOR FLAG**

NUMBER OF DEFICIENCIES AND % OF TOTAL

VENT SYSTEM	PUMP ROOM	CARGO PUMPS	FIRE PROTECTION	ELECTRICAL SYSTEM	NAVIGATION SAFETY	CARGO MANAGEMENT	POLLUTION PREV. MEAS.	OTHER	NUMBER OF DEFICIENCIES AND % OF TOTAL	
									DEF.	%
LIBERIA	1,211/24.6	343/37.8	627/37.1	278/33.7	239/34.1	397/28.6	391/31.2	125/22.5	211/31.3	
PANAMA	235/ 6.7	46/ 5.1	79/ 4.0	33/ 4.0	51/ 7.3	85/ 6.1	86/ 7.1	20/ 3.6	65/ 6.7	
GREECE	719/20.6	198/21.8	465/27.5	200/26.2	153/21.9	354/25.5	225/19.1	120/21.6	142/21.1	
NORWAY	376/10.8	103/11.3	157/ 9.1	96/11.6	65/ 9.3	172/12.4	187/15.9	69/12.4	76/11.3	
GREAT BRITAIN	204/ 5.8	49/ 5.4	45/ 2.7	64/ 7.8	58/ 8.2	83/ 6.0	113/ 9.6	57/10.3	63/ 9.4	
JAPAN	105/ 3.0	24/ 2.6	55/ 3.1	39/ 6.7	12/ 1.7	44/ 2.2	25/ 2.1	23/ 4.1	22/ 3.3	
SINGAPORE	47/ 1.3	11/ 1.2	24/ 1.4	13/ 1.6	12/ 1.7	19/ 1.4	15/ 1.3	10/ 1.8	9/ 1.3	
NETHERLANDS	16/ .5	6/ .4	5/ .3	1/ .1	0/ 0.0	8/ .6	2/ .2	0/ 0.0	0/ 0.0	
ITALY	74/ 2.1	15/ 1.7	47/ 2.8	16/ 1.7	17/ 2.4	20/ 1.4	10/ .9	9/ 1.6	10/ 1.5	
FRANCE	62/ 1.8	9/ 1.0	12/ .7	5/ .6	4/ .6	12/ .9	10/ .9	15/ 2.7	2/ .3	
DENMARK	5/ .1	5/ .6	4/ .2	2/ .2	3/ .4	2/ .1	5/ .4	4/ .7	2/ .3	
W. GERMANY	54/ 1.5	12/ 1.3	29/ 1.7	20/ 2.4	7/ 1.0	27/ 2.0	20/ 1.7	15/ 2.7	12/ 1.8	
S. KOREA	40/ 1.1	9/ 1.0	24/ 1.4	13/ 1.6	16/ 2.3	15/ 1.1	9/ .6	1/ .2	8/ 1.2	
USA	31/ .9	12/ 1.1	34/ 2.0	4/ .5	6/ .9	5/ .4	10/ .9	16/ 2.9	7/ 1.0	
SPAIN	82/ 2.4	5/ .6	31/ 1.8	6/ .7	4/ .6	12/ .9	5/ .4	6/ 1.1	4/ .6	
FINLAND	44/ 1.1	11/ 1.4	20/ 1.2	8/ 1.0	6/ .9	15/ 1.1	7/ .6	4/ .7	5/ .7	
MEXICO	48/ 1.4	11/ 1.2	2/ .1	5/ .6	10/ 2.6	22/ 1.6	21/ 1.6	13/ 2.3	16/ 2.4	
<b>TOTAL</b>	<b>7,351/95.9</b>	<b>869/95.7</b>	<b>1,660/98.2</b>	<b>801/97.0</b>	<b>671/96.0</b>	<b>1,292/91.3</b>	<b>1,141/91.3</b>	<b>507/91.2</b>	<b>634/94.2</b>	

# Foreign Tanker Examination Program

## Age Vs. Deficiency Type

Jan. 77 - Dec. 78

Age Group	Deficiency Type	Percent of Total Def. of That Type
1-10 Years	Ventilation System, Cargo Piping System, Pump Room, Electrical System, Fire Protection Systems	21.6
> 10 Years		77.5
Age Unknown		.9
1-10 Years		34.6
> 10 Years	Cargo Handling Gear	64.5
Age Unknown		0.9
1-10 Years		43.4
10 Years	Navigation Safety Regulations	55.1
Age Unknown		1.5

## **FOREIGN TANKER EXAMINATION STATISTICS FOR MAJOR PORTS**

	TOTAL EXAMINATIONS	TOTAL DEFICIENCIES	EXAMINATIONS WITH DEFICIENCIES	% DEF. EXAMS	NO. DEF. PER EXAMS	WITH DEFICIENCIES
ANCHORAGE	33	9	24	68	27.3	2.8
BALTIMORE	67	52	35	78	1.6	4.5
BOSTON	108	52	56	91	48.1	3.4
CHARLESTON	32	21	11	46	65.6	4.2
CHICAGO	4	3	1	11	75.0	11.0
CORPUS CHRISTI	119	51	68	113	36.7	3.4
DETROIT	6	5	1	2	83.3	2.0
GALVESTON	100	92	88	159	51.1	4.1
GUAM	12	2	10	50	16.7	5.0
HONOLULU	104	86	18	83	82.7	2.9
HOUSTON	136	21	115	1261	15.4	11.0
HAMPTON ROADS	93	49	44	147	52.7	3.1
JACKSONVILLE	30	20	20	111	40.0	3.4
LOS ANGELES	178	220	158	557	58.2	1.5

MOBILE	TOTAL EXAMINATIONS		TOTAL DEFICIENCIES		EXAMINATIONS WITH DEFICIENCIES		TOTAL EXAMS PER DEF. EXAMS		NO. DEF. PER EXAMS		WITH DEFICIENCIES	
	18	12	6	6	63	66.7	10.5	13	13	13	13	13
NEW ORLEANS	669	327	342	342	1614	48.9	4.7	2/1 X 100	2/1 X 100	2/1 X 100	2/1 X 100	2/1 X 100
NEW YORK	492	149	343	1467	30.3	4.2						
PATRIOTIC PHILADELPHIA	190	89	101	505	46.0	5.0						
PORT ARTHUR	708	221	487	2835	31.2	5.8						
PORTLAND, ME	144	67	77	398	46.5	5.2						
PORTLAND, ORE.	3	1	2	2	33.3	1.0						
PROVIDENCE	108	85	23	87	78.7	3.8						
SAN DIEGO	3	3	0	0	100	0.0						
SAN FRANCISCO	139	78	61	259	56.1	3.9						
SAN JUAN	141	80	61	231	56.7	3.8						
SAVANNAH	40	33	7	11	82.5	1.6						
SEATTLE	172	78	94	601	45.3	6.4						
TAMPA	24	17	7	21	70.6	3.0						